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Professor Mahmud Ali Shah

M.S.; F.A.C.S.; F.I.C.S. F.C.P.S.;

Message

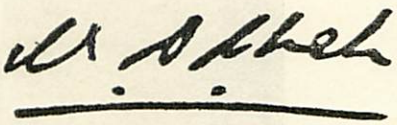
ON this occasion of the Silver Jubilee of Dow Medical College, Karachi, I send my greetings to the Dow Medical College Students' Union.

These greetings are from one who has had a long association with this College, indeed from its very inception, as a teacher (1945-69), Vice-Principal (1948-55)and Principal for a record period of over 14 years (1955-59)6.

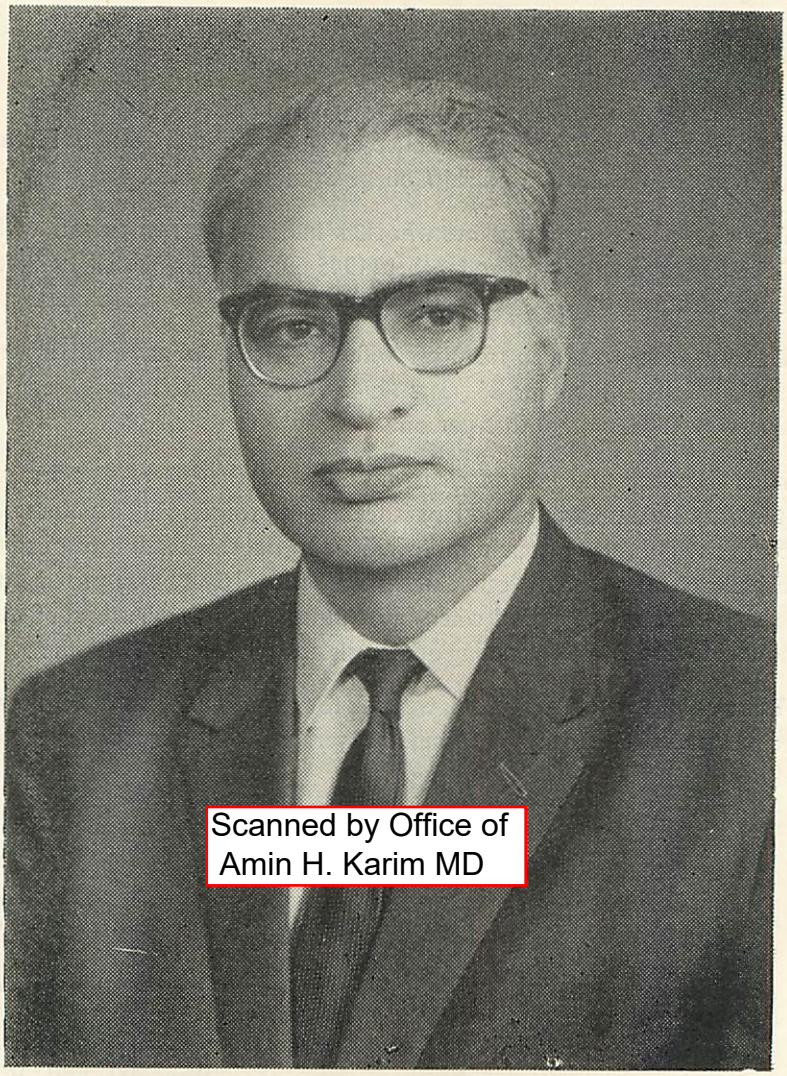
These greetings are also from my wife Dr. Mrs. Mubarika Shah who has been a teacher in his College for over 25 years (1945-70), and in that has, therefore, the longest association with it than any other person.

With the deep and prolonged involvement in the life of this Institution it is but natural that, at this time, we should have a feeling of profound thankfulness to the Almighty for enabling us to discharge our responsibilities to the satisfaction of our conscience, even as we discharge them towards our children. We are happy and proud on this occasion, even as we are happy and proud when our children cross a milestone of their life successfully, and look forward to its crossing other milestones in the future even more successfully.

As in the past, as in the future, we look forward to its growth with confidence, which we will continue to follow with profound prayers and keen personel interest.



Prof. M. A. SHAH,
Principal and Professor
Dow Medical College, Karachi, (Retd.),
Vice-President 3rd World Conference
on Medical Education.



Professor MUSHTAQ HASSAN
M. D., F. R. C. P. Ed.

Message

TO be asked to write a message for DOWLITE on the occasion of the Silver Jubilee of Dow Medical College is at once a unique pleasure as well as an occa:ion for serious stock taking with a view to energise all concerned towards further effort and attainment.

As one who has served this College for the best part of these 25 years since 1948 when most of the staff and opted to go away across the border after Independence and when many departmments were left unmanned, when a young man like me as I then was, who was primarily selected by the Sind Public Service Commission to teach Therapeutics and Clinical Medicine in a Lecturer's post, had in addition found himself required to head the Departments of Pathology and Pharmacology *et. seq.*, when all that work gave one unique pleasure, and a sense of contribution, however humble, it is a matter of joy and thanks giving that one has been spared by Providence and back in this Institution after serving others for some time, to celebrate this occasion with many of one old colleagues and alumni and, of course, one's present day students. That one is looked upon with respect and affection by so many of one's students is the principal pleasure and privilege of a teacher, which few in other walks of life are fortunate enough to enjoy.

Old memories of happy associations are a treasure to live with and on this occasion one remembers the many colleagues and a huge number of students one has enjoyed the company of, seniors one has enjoyed serving under and juniors whom it was and is invigonating to have in one's team and a pleasure to train.

But a Silver Jubilee is the celebration of a HAPPENING, the mere passage of 25 years in the life of and institution, like people celebrating their birthdays and silver anniversaries of the weddings of happy couples.

The Silver Jubilee of an institution is a milestone where one pauses to think of its attainments as a whole and of its principal constituents: the staff and students and the administration that helps it to run along desired lines and towards the desired goal.

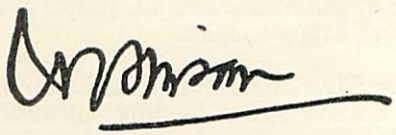
In the context of the administration, the institution has passed through many hands. From the original Government of Sind, it went to the Central Government, thence to West Pakistan Government and finally to the new Sind Government again. Too many changes in the administration are liable to bring certain set backs with them at times. Now that it has come back to the Government of Sind, good administration, better financial allocation and its better utilisation is likely to help it come up at a faster pace than hithertofore. The staff and students have to ask themselves the big question: Could we have done better? The answer is certainly YES. The difficulties of the former do not end themselves to discussion here but those of the students do merit consideration. Lur students have to ask themselves: Are we making full use of the educational facilities offered in this insititution or are we dissipating our energies along other channels or detours that lead us away from the straight path orginally chosen by us? The answer, in large measure, is: NO. One has only to remember that the shortest distance between two points is a straight line and anything longer than this is a detour which claims uncessary time and effort. Life is short while science and art are long and need whole hearted attention. Continued harmony and good will among all is a pre-requisite in a teaching institution and I am confident that it will be maintained.

Apart from these base-line considerations, with their energetic and fertile minds, the better among our students, who are an easy match with the best anywhere in the world, can think along more academic lines on their own initiative like some students of Edinburgh who in 1737 decided to found a student medical society to meet weekly in a tavern to hear dissertations on some medical subject from one of their members. This Society received the Royal Charter in 1779 from George III and came to be known as the Royal Medical Society of Edinburgh. It is the oldest student society in Great Britain and has cultivated a truly distinguished tradition. No wonder that great men like Lord Lister (of Antiseptic Surgery fame), Sir James Simpson (Scottish Obstetrician whose forcaps are well known), Sir Charles Bell (palsy etc), and Charles Darwin (Theory-of Evolution) are some or its distinguished past members.

Muslims too have a great tradition of learning and contribution. Can't they in this era enliven it rather than be content with memories of days long past? Surely they can. Then why not the students of Dow Medical College which already produced some very able alumni? Many of our students surely have that extra energy and initiative and talent which can be harnessed in this attractive direction rather than in some others, some of which can lead us nowhere except intellectually and professionally barren wastelands.

The College alumni have now attained a very large number. Competition is growing tougher and fiercer as time is ticking by. Now more than ever do they have to stick to the rules of fair competition and traditional values of life that make it worth living here and worth fighting for. They have to guard against letting the whole thing acquire the completion and odour of a rat race. I am sure most of them are far and away from this kind of possibility and I know that their approach to life and their deeds are wholesome and small sweet.

That this historic occasion should be celebrated by the students of this College on their own initiative without help from the Government and without self interest is a token of their unbounden love for their Alma Mater. I congratulate the President and office bearers of the Students' Union for this, and Mr. Hashem Shariat, the Magazine Secretary for the personal and painstaking effort he has put in to dig out the early history of the College with the help of the relevant authorities and reaching the original sources of information in the manner of a scholar of history and also the general effort he has put in to produce this year's "Silver Jubilee Edition" of DOWLITE INTERNATIONAL which I hope will be an unprecedented success.



(PROF. MUSHTAQ HASAN)
M.D., F.R.C.P.Ed.
Professor of Medicine, Dow Medical, College,
Head of the Deptt of Medicine, Karachi University.
and
Ex,Chairman Magazine Section
Dow Medical Colloge Students, Union

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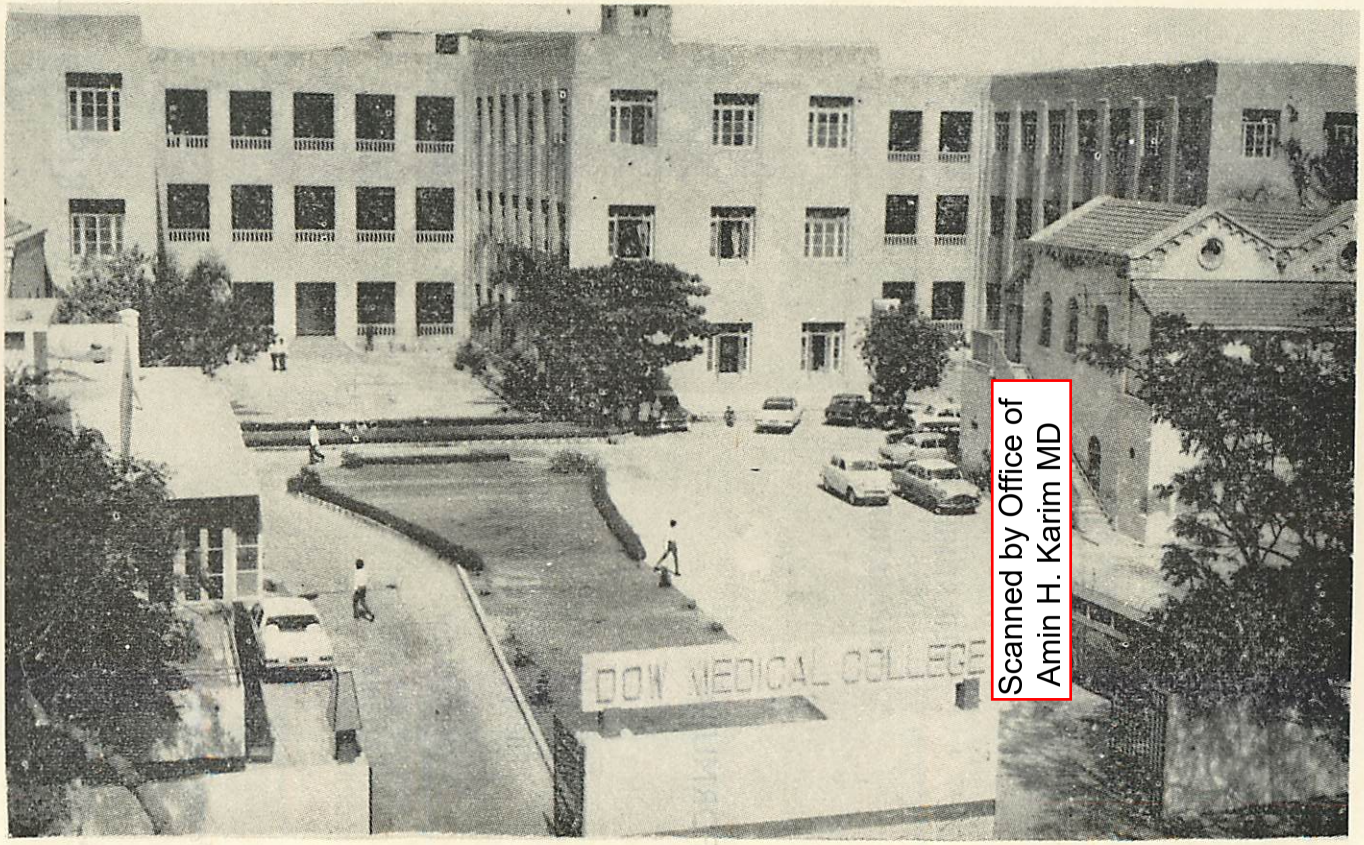

Site for M. B., B. S.

(Photo by Editor)

Birth of Dow Medical College Karachi

By
HASHEM SHARIAT
EDITOR & MAGAZINE SECRETARY
Dow Medical College Students' Union

THE necessity of raising the Medical School at Hyderabad established in the year 1881 which was as a result of personal efforts of Dr. Holmisted, to the status of a full fledged degree college, was keenly felt by the former Government of sind in the year 1941, when the Indian Medical Council recommended the introduction of a Uniform Standard of Medical Education throughout the sub-continent, by either abolishing Medical Schools for Licentiates or by raising them to University Standard.

In pursuit of these recommendations the late Government of Sind constituted a committee consisting of the Inspector General of Civil Hospitals, Sind, the Civil Surgeon Karachi and the Executive Engineer, Karachi Building Division in the year 1941, to give the recommendation of the Indian Medical Council practical shape, *and also explore the possibility of shifting the Medical School from Hyderabad Sind to Karachi* and its subsequent conversion into a Degree College. The Committee submitted its report to the Government of Sind but the proposal made no head-way owing to heavy financial stringenoy at that time.

The proposal was hower resuscitated in 1943 by Dr. Hemandas R. Wandhwani the *then Minister* Incharge, Medical and Public Health Portfolio. The then inspector General of Civil Hospitals, Col., J.E. Gray took keen personal interest in the initial development of college. He along with Mr. Abhichand (P.W.D.) went all over India to see the design of various medical colleges and on return the plans of Dow Medical College was a result of this study.

Col., Gray used to visit the building under construction and also the Anatomy museum *under preparation* very frequently and by his personal efforts tried to remove any bottle-neck or inpediment in progress. During his absence abroad on leave during that period the officiating Inspector General Civil Hospital, Major (Later Lt. Col.,) Aziz K.M. Khan continued to take the same interest so that the project should be completed within the shortest time. He subsequently became the Principal and the head of the department of Surgery.

The new building when was ready was inaugerated by Governor Mudie, of Sind with colourful ceremoney attended by high civil officials. The first Batch of 45 students for the proposed M.B.,B.S. Class among whom there was only one Muslim girl student named Miss Fahmeeda Shaikh was admitted in June, 1945, in Hyderabad Sind Medical School redesignated Medical College. Thus the Medical College ultimately was called to life.

In 1944 University of Bombay granted temporary affiliation but when a team of 3 inspectors (Dr. Molgonkar, Dr. Yodh, & Col., Jalal M. Shah, but Col., Jalal Shah could not come) visited the college later in that year they disaffiliated the institution for, interalia, lack of Anatomy museum, dissected specimen, library, etc., They further said that the Anatomy museum should have 500 exhibits and that sufficient number of dissected part should be made available to the students for the purpose of revision. They further suggested as the clinical material was not likely to be enough in Hyderabad for training 40 Doctors, the institution should be shifted to Karachi. For all this they gave the Government 9 months after which the inspection committee proposed to revisit the college and then on the recommendation of this committee the college was affiliated to University of Bombay for a period of 2 years from 1945 to 1946 for the courses of studies leading upto the First M.B.,B.S. Examination, on the understanding that the college would be shifted to Karachi before the end of first year. The 1st batch of 20 students appeared in their 1st Professional M.B.,B.S., examination in October 1947, Prof. Motvani from Bombay University was the external examinar, and result was 100%.

The college was transferred to Karachi from Hyderabad on 31st December, 1945 and was temporarily housed in N.J.V. High School Building, where the Medical College Office, Library and students' common rooms are housed at present.

Mr. P. W. Abhichandani, Executive Engineer, Sind P.W.D., proposed the design for the new College building after seeing on the spot the Medical College at Bombay, Lucknow, Delhi and Amritsar. He was accompanied, during the tour by Lt. Col. J.E. Gray, the then inspector General of Civil Hospitals. Sind. The foundation stone of the new college Building was laid on 10 December, 1945 by Sir Hugh Dow, the then Governor of Sind, after whom the Medical College is named. It started functioning in a portion of the ground floor of the new building in November, 1946.

The Bombay University Inspection Committee which again inspected the college in December, 1946 recommended that the affiliation of this college should be continued for the preclinical subjects of the M.B.,B.S., Degree and conditionally recommended affiliation for the clinical and allied subjects. Recognition of the Anatomy Department came about as a result of marathon sessions of hard work put in by Professor and Dr. Mrs. M.A. Shah, to get the Anatomy Museum ready within a year of their appointment in this college.

On the emergence of Pakistan the Inspection Committee appointed by the University of Sind visited the Dow Medical College on 22nd & 223rd December, 1947 and recommended the affiliation of the college for teaching courses in Medicine leading upto 3rd M.B.B.S. Degree Examination (equivalent to existing Final Professional M.B.B.S., Examination).

Since its inception, the college remained under the administrative control of the former Sind Government upto 7th July, 1951. The Central Government took over this Institution and its attached Hospital on 8th July, 1951, from the Government of Sind as a natural consequence of the former having taken over the administration of Karachi from Sind. Since then the College made much headway and the pace of progress accelerated. However no one can fail to be impressed by the magnitude of problems which initially had to be faced and overcame. From 7th March, 1962 the administration of this college was taken over by the West Pakistan Government from the Central Government. With the dismemberment of "One Unit" on 30th June, 1970, the Institution has automatically returned to Sind Government.

The College is affiliated to the University of Karachi since 1951. The Pakistal Medical Council accorded recognition to the College in the year 1953. The Genera Medical Council of Britain also accepted the recognition of those Medical graduates who qualified in May, 1955 and onwards.

It is not super-fluous to point out that this college started functioning in the year 1945-46 with 44 students on its roll. Skeleton staff was provided in order to meet initial requirements and was augmented in subsequent years with the addition of senior classes. Thus we were having 3rd M.B.B.S. Class in the year 1948-49. The number of admissions were also increased simultaneously as soon as better facilities for teaching etc. were provided by the former Government of Sind. 92 students were admitted to the 1st year M.B.-B.S., Class in the year 1948-49. as compared with 44 students in the year 1945-46 lead-upto 130 students in 1953. With the passage of time the number of admission to the College increased further. By 1957 it had reached 158 and this year (1970-71) the number has increased to 224 students. (In 1951 reorganisation of teaching post in Dow Medical College and attached Civil Hospital and Jinnah Central Hospital was done on recommendation of Col., Jalal M. Shah who suggested creation of number of specifilists units in both the hospitals).

In August, 1952 a course of Diploma in Pharmacy started functioning. This course extended over a period of two academic years. The students were required to complete the following courses of study during these two years.

(1) Pharmaceutics. .. (2) Forensic Pharmacy.
(3) Pharmaceutical Chemistry. .. (4) Physiology, Pharmaceology & Toxicology,
(5) Pharmacognosy.

In July 1954 the condensed M. B. B. S., course was started for the medical Licentiates when 14 students were admitted. These Licentiates were required to undergo a course of at least 2 years duration. The 1st 6 months were devoted to the study of Anatomy, Physiology and Pharmacology, whereas the remaining period of 18 months was devoted to:—

(i) A course in Medical Jurisprudence & Hygiene.
(ii) A full course in Pathology.
(iii) Hospital Practice (Medical & Surgical) for the entire period of clinical studies.
(iv) Compliance of Pakistan Medical Council's requirements in Midwifery & Gynaecology.
(v) All other subjects and courses as laid down for the Final Professional M.B.B.S. Examination.

The College was still in embryonic stage with difficulties in staffing upto the year 1948-49 with its students raised upto only III year, M.B.B.S. By 1950 the institution was complete when the first batch of 9 students left the portals of the college after passing the final year M.B.B.S., Examination of the University of Sind.

Dr. Hamidali M. Khan then the only Assistant Professor of medicine had to hold additional charge of the department of Pharmacology after Professor Bose migrated to India on partition. Dr. Mushtaq Hasan Lecturer in Therapeutics in the department of medicine had to work as Professor of Pathology and later of Pharmacology as well when Dr. Khan left on a Fellowship Overseas. The Pathology and Pharmacology Departments were kept going by these means.

The College after being affiliated to the University of Karachi in the year 1951 it affords instructions for:—

(i) M. B. B. S., Degree of the University of Karachi (which is recognised by the Medical Council of Pakistan and Royal College of nahPscsiiA Edinburgh. (extending a period of five years.)
(ii) Provides facilities for condensed M. B. B. S. Course (extending a period of two years.)
(iii) Provides course of instruction for F.C.P.S., (extending over a period of 2 years.)

DEPARTMENTS

The college is organised in the following major departments for teaching purposes, each headed by a professor.

BASIC:	(i) Anatomy (ii) Physiology (iii) Pharmacology & Therapeutics. (iv) Pathology.	
CLINICAL:	(i) Ophthal mology	One Unit.
	(ii) Ear, Nose & Throat Departments	Two Units.
	(iii) Medicine. ..	Three General Medical units.
	(iv) Surgery ..	Three General Surgical units and an orthopaedic unit,
	(v) Obstetrics & Gynaecology ..	Two units, each headed by a Professor.

In addition to the above departments, there are a number of more specialised units in the Civil Hospital, Karachi.

The Clinical departments are now located in the attached Civil Hospital only, unlike previously when the Jinnah Central Hospital Karachi was also attached to the college and had various clinical departments functioning there as well. The main college building houses all the basic departments.

All the Professors and Departmental Heads refer their academic and personal problems to the office of the Administrator Dow Medical College, which sends all its proposals and correspondence etc. through the Secretary of Health, Sind Secretariat, Tughlaq House Karachi for obtaining sanction of the Government before execution.

This institution caters for the training of undergraduate Medical students and prepares the students for M.B.B.S., degree of the University of Karachi, the ultimate aim of which is to secure adequate distribution and utilisation of trained personnel in relation in the needs of the entire population and thereby providing medical services to the individual and community. The courses of study for M.B.B.S., extend over a period of 5 academic years between the date of commencement of study of the subjects comprising the medical curriculum and the date of final qualifying examination; provided that the last three years of the period must have been spent in the study of the clinical group of subjects.

In put in a nut shell the 1st and 2nd years of studies are devoted to the subject of Anatomy and Physiology.

In 3rd and 4th year the students are required to complete, Pharmacalogy, Forensic Medicine & Texicology, Hygiene, Pathology, Bacteriology and Parasitology respectively. In the final year they are required to complete (i) Medicine and Diseases of Children (2) Midwifery and Gynaecology (3) Surgery (4) Diseases of the Eye and (5) Diseases of Ear, Nose and Throat, etc. During the 3rd, 4th and Final years, the students are divided into small groups for practical work (e.g. Hospital practice, Indoor and Outdoor etc.) in the vaious clinics. Besides, the students also attend Lectures, tuitorial and demons trations in the subject(s) to be completed in the Final year during the aforesaid period.

This Institution is committed not only to conduct teaching of heighest order but also to studyd iseases and science underlying medicine in order to add to Medical knowledge.

1.	Dr. Kewalram Tarasingh Ramchandani M.B.B.S. , (Bombay) S.M.S.I.	From 1st June, 1945 to 30th Dec. 1945.
2.	Lt. Col. Aziz Khan Mohammad Khan, .. I.M.S. (Rtd.) F.R.C.S., F.C.P.S., F.A.C.S. F.I.C.S., M.B.B.S,, L.R.C.P., M.R.C.S., D.L.O. R.C.S., D.M.R.E., R.C.S.	From 31st Dec. 1945 to 25th Jan. 1953.
3.	Lt Col. Sher Muhammed Khan Malik, .. M..D.,F.R.C.P., D.P.H.,	From 26th Jan. 1953 to 31 Aug. 1954.
4.	Lt. Col. Aziz Khan Mohammad Khan, .. I.M.S., (Rtd.) F.R.C.S., F. A. C. S., F.I.C.S. M.B., B.S., L.R.C.P., M.R.C.S., D.L.O. R.C.S., D.M.R.E., R.C.S.,	From 1st Sep., 1954 to 25th May, 1955. A.N.)
5.	Pofes.sor Mahmud Ali Shah, M.S., .. F.C.P.S,,F.I.C.S., F.A.C.S., ..	From 26th May, 1955 (A.N.) to 29th September, 1969.
6.	Professor A. Wahid, .. M.S.(Surg) (Luck) M.S. (Anat) (Luck), F.I.C.S.,	From 30th September, 1969 tc date.

The post of Principal has redesignated Chairman, College Academic Council with effect from 9th March, 1960.

BASIC DEPARTMENT HEADS IN SEQUENCE

(1) ANATOMY:

	Dr. A. Guha, M.Sc. ..	Professor ..	1944 to 1946
(2)	Dr. M. A. Shah, .. MS., F.C.P.S., F ACS, FICS,	Professor	19-6-46 to 26-1- 49
(3)	A. Wahid ..	Professor	Acting
		Professor	27-1-49 to 30-12-49
		Professor	31-12-12-49 to date

(2) PHYSIOLOGY :

(1)	Dr. Inderjit Singh Ph. D. (Cautah)		1944 to 1948
(2)	Dr. M. A. Basir., M.B.B.S., Ph. D.,	Professor	11-12-48 to to1949
(3)	Dr. S.H. Zaidi, .. M.B.B.S. M.D.,	Offtg. Prof.	14-5-51 to 1-7-51
		Professor.	2-7-51 to 7-7-52
	Dr. Charles Reid, .. M. A., D.Sc., M.D., D.P.H.	Professor ..	30-4-52 to 24-4-57
(5)	Dr. S. Afaq Ahmed. B.Sc., (Med).	Professor ..	1-3-63 to 3-1-66
(6)	Dr. Gulzar Ahmed. Ph. D.,	Professor	4-1-66 to 19-4-66
(7)	Dr. S.H. Zaidi, M.D., ..	Professor. ..	8-9-66 to date.

(3) PHARMACOLOGY :

(1)	Dr. B.C. Bose, M.D., D.Sc., ..	Professor	20-4-44 to 14-4-48
(2)	Dr. Mazharul Haq, M.B.B.S., M.D.	Professor	2-2-49 to 29-2-68
(3)	Dr. S. M. Yousuf, M.B.B.S., Ph. D.,	Professor	1-8-68 to date

(4) PATHOLOGY :

(1)	Dr. J. Mordacai. M.D.	Offtg. Prof.	1944 to 31-12-45
(2)	Dr. D. Golakery Ph. D.	Professor ..	31-12-45 to Aug. 1948
(3)	Dr. Mohammad Ali Mistry M.D., (Lond.) MRCP (Eng.)	Hony. Part-Professor	16-9-48 to 31-1- 49
(9)	Dr. Mushtaq Hasan, M.D.	Professor.	Feb. 49 to June, 1949
(5)	Dr. M. A. Husain Ph. D., ..	Professor. (a) (b)	15-7-49 to 28-7-50 20-11-50 to 4-3-53
(6)	Dr. G.T. Stewart, B.Sc., M.D., DTM & H.	W. H. O. Professor.	4-3-53 to 21-12-53
(7)	Dr. Tafazzul Hussain, .. M.B.B.S., DTM & H. Ph. D.	Professor ..	27-1-54 to 6-6-70

(5) HYGIENE & PREVENTIVE MEDICINE:

(1)	Dr. Habibur Rahman ..	Part-time Professor ..	1-7-50 to June, 51
(2)	Major Shamsuddin, B.Sc., M.B.B.S., B.S.Sc., D.P.H. (Lond.)	Part time Professor.	30-8-51 to 5-9-54
(3)	Dr. Mohammad Iliyas .. B.Sc., M.B.,B.S. DPH., M.P.H., (Harward)	-do-	(a) 6-9-54 to 1-5-55
(4)	Major G.H.K. Niazi, M.B.B.S., DPH.,	-do-	2-5-55 to 7-3-67
(5)	Dr. M. Iliyas M.B.,B.S. D.P.H., MRH.,	-do:	8-3-57 to 2-2-64
(6)	Dr. M.A. Ansari M.B.,B.S. D.P.H. (Lon.	-do-	3-2-64 to date

(6) FORESNIC MEDICINE & TOXICOLOGY :

(1)	Dr. S.M. Ataur Rahman, M.B.B.S.	Part-time Professor.	25-8-51 to Sept, 54
(2)	Dr. A.J. Khan, M.B.B.S.,	-do-	127-9-54 to 30-1-54
(3)	Major Anwarul Hasan, M.B.,B.S.	-do-	1-12-54 to 10-8-68
(4)	Dr. Mohammad Umer Khan; M.B.,B.S.	Police Surgeon	May, 68 to date.

CLINICAL DEPARTMENTS

(1) SURGERY :	(1)	Lt. Col. Aziz K. M. Khan, IMS. FRCS. FACS., FICS., DCO., DMRE., LRCP.,	Professor & head of the deptt of Surgery.	31-12-45 to 25-5-55
	(2)	Dr. Munawar Ali, F.R.C.S.	Hony. Prof.	28-3-49 to 15-7-55
	(3)	Lt. Col. Said Ahmed, M.B.B.S., FRCS., FICS.,	Professor.	30-4-54 to 18-2-65 from 1955 continued as head of the deptt of Surgery and also Director of Cancer Institute in Jinnah Central Hospital till1960
	(4)	Dr. M. A. H. Siddiqui .. T.Pk, M.A., M.S., F.R.C.S.,	Professor	5-1-53 to 12-7-57
	(5)	Dr. S.A.H. Razvi, .. M.B.,B.S. C.H.M., F.R.C.S., F.C.P.S.,	Professor	4-8-65 to date.
	(6)	Dr. Fazal Elahi., .. M.B.B.S., DTM&H (Eng.) F.R.C.S. (Edin) FACS. FICS	Professor.	18-2-65 to date.
	(7)	Dr. Naseer Shaikh., M.B.,B.S. F.R.C.S., ..	Professor.	1968 to 21-1-69
	(8)	Ismail A. Agjee., M.B.,B.S.; F.R.C.S.	Professor.	22-1-69—Nov. 70
	(9)	Dr. Naseer Shaikh- ... M.B.,B.S. F.R.C.S.,	Professa-	Nov. 70 to date
(2) MEDICINE :	(1)	Dr. Mohd. Ali Mistry .. MD (Lond) MRCP (Eng.)	Hony. Professor.	June, 48 to 31-3-51
	(2)	Major S.A. Hasan, .. M.B.B.S., FRCP.,	Professor.	13-8-47 to 30-11-66
	(3)	Lt. Col. M.H. Shah, MRCP. D.PM.	Professor of Clinical Medicine.	22-8-51 to 1954
	(4)	Lt. Col. S.M.K. Mallick M.D. F.R.C.P.,	Professor	26-1-53 to 31-8-54
	(5)	Dr. Mushtaq Hasan M.D., F.R.C.P.,	Professor	17-5-63 to date
	(6)	Lt. Col. Najib Khan., T. Pk. MD. (Durhan) F.A.C.C.P.	Professor	13-9-66 to date.
	(7)	Dr. A. M. Kassim .. MBBS., M.R.C.P., F.R.C.P.	Professor ..	15-1-57 to 1-9-63

(8)	Dr. Iftikhar Ahmed., MBBS., M.R.C.P., D.T. M&H ..	Professor.	(i) 6-2-65 to 9-9-56 (ii) 30-11-66 to 24-4-69
(9)	Dr. M. Hayat Zafar, M.R.C.P., D.T.M. & H., D.M.R.E., ..	Professor	3-5-69 to 3-7-70
(10)	Dr. Kh. Muin Ahmed, MBBS., D.T. M&H. M.R.C.P.	Professor	14-7-70 to date.

(3) EYE:

(1)	Dr. M.A. Shah M.B.B.S., M.S., (Pb) PCPS., FACS., F.I.C.S. ..	Professor,	15-12-48 to 29-9-69
(2)	Dr. A.D. Minhas, MBBS., L.M.S., D.L.O., D.O.M.S., F.I.C.S., ..	Eye Surg.	16-5-53 to 1962.
(3)	Dr. M.M. Hasan M.B,B.S.; D.O.M.S.; F.R.C.S.	Professor	13-7-70 to date

(4) EAR NOSE & THROAT.

(1)	Dr. A. Rahman. M.B.B.S. (Luck) Ph.D. Luck) DMRE.,	Part-time.	12-9-58 to 13-7-49
(2)	Dr. Shafiuddin Khan, D.L.O., FRCS. (Edin). ..	Professor	14-7-49 to 12-10-69
(3)	Dr. Asghar Nizami, MBBS., FRCS., (Eng.,) D.L.O. (Eng.) F.I.C.S.,	Professor.	7-9-59 to 2-9-63
(4)	Dr. M.A. Qayyum, FRCS., D.L.O. D.O.,	Professor	22-11-69 to date.
(5)	Dr. I.H. Jafri, MBBS. D.L.O., (RCP & RCS), FRCS. (Eng.)	-do-	18-6-70 to date.

(5) OBSTETRICS & GYNAECOLOGY :

(1)	Dr. A.P.R., Pinto, M.D., FRCS., (Edin), M.S., F.R.C.S. (Eng.)	Professor	1-8-47 to 31-1-51
(2)	Dr. Miss. S.A.A. Siddique, M.B.B.S., D.G.O., MRCOG., FRCOG.,	Professor	3-4-51 to 19-9-66
(3)	Dr. Mrs. Zubaida Aziz, MBBS., (Pb.) FRCS (Edin) FRFPS, (Glasgow) FRCOG.	Professor	5-1-54 to date.

(4)	Dr. Abdus Samad Chowdhri, M.B., MRCOG., FRCOG., (Lond.)	Professor.	2-3-54 to 1-9-63
(5)	Dr. Salar Akhtar Aziz, MBBS., D.G.O., (Dublin) L.M., (Totunda) MRCOG., FRCOG.	Professor	28-3-67 to date.

(6) ORTHOPAEDICS:

(1)	Col. Ronald Simcox, F.R.C.S., ..	Honorary Professor.	24-2-49 to 1952
(2)	Dr. A. Rahim, T.Q.A., M.B.B.S., M.Ch. (Orth) (Liv) FRCS.? (London)	(1) Associate Surgeon & Assistant Prof.	27-4-53 to 11-10-62
		(2) Prof.	12-10-62 to date.

(7) PAEDIATRICS:

(1)	Mrs. Mubaraka Shah M.B.,B.S.; DCH. (Lon.) ..	Asstt. Physician and Asstt. Professor.	1951— to June 1970.
	Dr. A. Gaffar Billoo M.B.,B.S. D.T.M. & H. D.C.H. M.R.C.P. (Edin.)	Asstt. Professor 23-12-69 to date	

General Strength of the College Year-Wise

YEAR	Male	Female	Total
1945-46	—	—	44
1946-47	—	—	47
1947-48	140	17	157
1948-49	182	34	216
1949-50	232	76	308
1950-51 ..	307	109	416
1951-52	446	113	559
1952-53	525	137	662
1953-54	628	182	810
1954-55	598	190	788
1955-56	600	195	795
1956-57	654	211	865
1957-58	687	195	882
1958-59	687	195	882
1959-60	631	182	813
1960-61	609	170	779
1961-62	616	174	790
1962-63	602	194	796
1963-64	626	200	826
1964-65	641	187	828
1965-66	651	206	857
1966-67	673	220	893
1967-68	702	249	951
1968-69	795	243	1,038
1969-70	846	272	1,118
1970-71	815	285	1,100

Roll of Admission to 1st Year M.B.,B.S. Class

YEAR	Male	Female	Total
1945-46	—	—	44
1946-47	—	—	47
1947-48	77	5	82
1948-49	76	16	92
1949-50	107	18	125
1950-51	83	24	107
1951-52	100	30	130
1952-53	100	30	130
1953-54	103	30	133
1954-55	100	30	130
1955-56	100	30	130
1956-57	102	30	132
1957-58	100	30	130
1958-59	100	30	130
1959-60	100	30	130
1960-61	100	30	130
1961-62	96	30	126
1962-63	102	30	132
1963-64	94	40	134
1964-65	111	39	150
1965-66	112	41	153
1966-67	116	42	158
1967-68	121	37	158
1968-69	142	53	195
1969-70	154	50	204
1970-71	163	60	223

Roll of Foreign Students Year-Wise

Year	Country	Ist Year		IInd Year		IIIrd Year		IV Year		Vth Year		Total		Grand Total	
		M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.
47-48															
48-49	E. Africa	1	—	—	—	—	—	—	—	—	—	1	—	1	—
49-50	E. Africa	—	—	1	—	—	—	—	—	—	—	1	—	1	—
50-51	E. Africa	—	—	—	—	1	—	—	—	—	—	1	—	1	—
51-52	E. Africa	1	—	—	—	—	—	1	—	—	—	2	—	2	—
52-53	E. Africa	1	—	1	—	—	—	—	—	1	—	3	—		
	Ceylon	1	1	—	—	—	—	—	—	—	—	1	1	5	1
	Iran	1	—	—	—	—	—	—	—	—	—	1	—		
53-54	E. Africa	—	—	1	—	1	—	—	—	—	—	2	—		
	Ceylon	—	1	1	1	—	—	—	—	—	—	1	2	5	2
	Iran	—	—	1	—	—	—	—	—	—	—	1	—		
	India	1	—	—	—	—	—	—	—	—	—	1	—		
54-55	E. Africa	—	—	—	—	1	—	1	—	—	—	2	—		
	Ceylon	—	1	—	1	1	1	—	—	—	—	1	3	6	3
	Iran	—	—	—	—	1	—	—	—	—	—	1	—		
	India	1	—	1	—	—	—	—	—	—	—	1	—		
55-56	E. Africa	—	—	—	—	—	—	1	—	1	—	2	—		
	Ceylon	—	—	—	—	—	1	1	1	—	—	1	3	6	3
	Iran	—	—	—	1	—	—	1	—	—	—	1	—		
	India	—	—	1	—	1	—	—	—	—	—	2	—		
56-57	E. Africa	1	—	—	—	—	—	—	—	1	—	2	—		
	Ceylon	—	—	—	—	—	1	—	1	1	1	1	3	7	3
	Iran	—	—	—	—	—	—	—	—	1	—	1	—		
	India	1	—	—	—	1	—	1	—	—	—	3	—		
57-58	E. Africa	—	—	1	—	—	—	—	—	—	—	1	—		
	Ceylon	—	—	—	—	—	—	—	1	—	1	—	2	6	2
—	Iran	—	—	—	—	—	—	—	—	1	—	1	—		
-	India	—	—	1	1	—	—	1	—	1	—	3	—		
	China	1		—	—	—	—	—	—	—	—	1	—		
58-59	E. Africa	—	—	—	—	1	—	—	—	—	—	1	—		
	Ceylon	—	—	—	—	—	—	—	—	—	1	—	1		
	Iran	—	—	—	—	—	—	—	—	1	—	1	—	6	1
	India	—	—	—	—	—	—	1	—	2	—	3	—		
	China	—	—	1	—	—	—	—	—	—	—	1	—		

YEAR	Country	Ist Year		IInd Year		IIIrd Year		IVth Year		Vth Year		Total		Grand Totai	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
59-60	E. Africa	1	1	—	—	—	—	1	—	—	—	2	1		
	India	3	—	—	—	—	—	1	—	—	—	4	—		
	China	—	—	—	—	1	—	—	—	—	—	1	—	8	2
	Iran	—	1	—	—	—	—	—	—	—	—	—	1		
	S. Africa	1	—	—	—	—	—	—	—	—	—	1	—		
60-61	E. Africa	3	1	1	1	—	—	—	—	1	—	5	2		
	India	—	—	3	—	—	—	—	—	1	—	4	—		
	China	—	—	—	—	—	—	1	—		—	1	—		
	Iran	—	2	—	1	—	—	—	—	—	—	—	3		
	S. Africa	1	—	—	—	—	—	—	—	—	—	1	—	13	6
	U. K. Br. Guina	1	—	—	—	—	—	—	—	—	—	1	—		
	U.K.Nayas-aland	1	—	—	—	—	—	—	—	—	—	1	—		
	Burma	—	—	—	—	—	1	—	—	—	—	—	1		
61-62	E. Africa	2	—	3	1	1	1	—	—	1	—	7	2		
	India	—	—	2	—	1	—	—	—	1	—	4	—		
	China	—	—	—	—	—	—	—	—	1	—	1	—		
	Iran	1	—	—	2	—	1	—	—	—	—	1	3		
	S. Africa	1	—	1	—	—	—	—	—	—	—	2	—	24	6
	UKBG	—	—	1	—	—	—	—	—	—	—	1	—		
	UKNL	—	—	1	—	—	—	—	—	—	—	1	—		
	Burma	—	—	—	—	—	—	—	1	—	—	—	1		
	Jordan	1	—	—	—	—	—	—	—	—	—	1	—		
	S. Arabia	4	—	—	—	—	—	—	—	—	—	4	—		
	Ethopia	—	—	2	—	—	—	—	—	—	—	2	—		
62-63	E. Africa	2	—	2	—	3	1	1	1	—	—	8	2		
	India	—	—	2	—	—	—	1	—	1	—	4	—		
	China	—	—	—	—	—	—	—	—	1	—	1	—		
	Iran	2	—	1	—	—	2	—	1	—	—	3	3		
	S. Africa	—	—	1	—	1	—	—	—	—	—	2	—	35	6
	UKBG	—	—	—	—	1	—	—	—	—	—	1	—		
	UKNL	—	—	—	—	1	—	—	—	—	—	1	—		
	Burma	—	—	—	—	—	—	—	—	—	1	—	1		
	Jordan	3	—	1	—	—	—	—	—	—	—	4	—		
	S. Arabia	7	—	—	—	—	—	—	—	—	—	7	—		
	Ethopia	—	—	—	—	2	—	—	—	—	—	2	—		
	Malaya	2	—	—	—	—	—	—	—	—	—	2	—		

YEAR	Country	Ist Year		IInd Year		IIIrd Year		IVth Year		Vth Year		Total		Grand Total	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
63-64	E. Africa	—	—	2	—	2	—	3	1	1	1	8	2		
	India	—	—	—	—	2		—	—	2	—	4	—		
	China	—	—	—	—	—	—	—	—	1	—	1	—		
	Iran	1	—	2	—	1	—	—	2	1	—	4	3		
	S. Africa	3	—	—	—	1	1	1	—	—	—	5	1	49-7	
	UKBG	—	—	—	—	—	—	1	—	—	—	1	—		
	UKNL	—	—	—	—	—	—	1	—	—	—	1	—		
	Jordan	1	—	3	—	1	—	1	—	—	—	6	—		
	S. Arabia	7	1	8	—	—	—	—	—	—	—	15	1		
	Ethopia	—	—	—	—	—	—	2	—	—	—	2	—		
	Malayasia	—	—	2	—	—	—	—	—	—	—	2	—		
64-65	S. Africa	2	—	3	—	1	—	2	—	1	—	9	—		
	Iran	1	1	3	—	—	—	1	1	—	1	5	3		
	UKNL	1	—	—	—	—	—	—	—	1	—	2	—		
	Jordan	2	—	—	—	3	—	1	—	—	—	6	—		
	S. Arabia	6	—	7	1	2	—	—	—	—	—	15	1		
	Aden	1	—	—	1	—	—	—	—	—	—	1	1		
	Kenya	1	—	—	—	—	—	—	—	—	—	1	—	51-6	
	E. Africa	—	—	—	—	—	—	4	—	1	1	5	1		
	India	—	—	—	—	—	—	1	—	1	—	2	—		
	Ethopia	—	—	—	—	—	—	—	—	2	—	2	—		
	Malayasia	—	—	—	—	2	—	—	—	—	—	2	—		
	UKBG	—	—	—	—	—	—	1	—	—	—	1	—		
65-66	S. Arabia	1	—	9	—	3	1	2	—	—	—	15	1		
	Iran	8	—	—	1	1	—	—	—	1	1	10	2		
	Jordan	4	—	4	—	—	—	3	—	1	—	12	—		
	S. Africa	5	1	1	—	4	—	2	—	1	1	13	2		
	E. Africa	1	—	1	—	—	—	3	—	2	—	7	—		
	Kenya	—	—	2	—	—	—	—	—	—	—	2	—		
	Uganda	1	—	—	—	—	—	—	—	—	—	1	—	69-7	
	UKNL	—	—	1	—	—	—	—	—	—	—	1	—		
	Aden	—	—	1	—	—	1	1	—	—	—	1	1		
	Malayasia	—	—	—	—	1	—	2	—	—	—	3	—		
	Tanzania	—	1	—	—	—	—	—	—	—	—	—	1		
	India	—	—	—	—	—	—	1	—	1	—	2	—		
	Iraq	2	—	—	—	—	—	—	—	—	—	2	—		
66-67	S. Arabia	3	—	2	—	8	—	2	1	1	—	16	1		
	Iran	5	—	7	—	2	1	1	—	—	—	15	1		
	Jordan	9	—	2	—	2	—	—	—	3	—	16	—		
	S. Africa	2	—	4	1	3	—	6	—	2	—	17	1		
	E. Africa	—	—	—	—	1	—	1	—	1	1	3	1		

YEAR	COUNTRY	1st Year		II Year		III Year		IV Year		Vth Year		Total		Grand Total	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
66-67 (contd.)	Kenya	—	1	—	—	2	—	—	—	—	—	2	1		
	Uganda	1	—	—	—	—	—	—	—	—	—	1	—		
	Nayasaland;	—	—	—	—	1	—	—	—	—	—	1	—	83	8
	Aden	—	—	1	—	—	—	—	1	—	—	1	1		
	Malaysia	—	—	—	—	—	—	1	—	2	—	3	—		
	Tanzania	—	1	—	1	—	—	—	—	—	—	—	2		
	Iraq	2	—	1	—	—	—	—	—	—	—	3	—		
	Sudan	1	—	—	—	1	—	—	—	—	—	2	—		
	Syria	1	—		—	—	—	—	—	—	—	1	—		
	Nigeria	—	—	1	—	—	—	—	—	—	—	1	—		
	Ceylon	1	—	—	—	—	—	—	—	—	—	1	—		
67-68	S. Arabia	14	—	1	—	3	—	5	—	2	1	25	1		
	Iran	2	—	9	—	2	—	2	1	1	—	16	1		
	Jordan	7	—	8	—	3	—	2	—	—	—	20	—		
	S. Africa	1	—	3	—	3	1	3	—	6	—	16	1		
	E. Africa	—	—	—	—	—	—	1	—	2	—	3	—		
	Kenya	—	—		1	—	—	2	—	—	—	2	1		
	Uganda	—	—	1	—	—	—	—	—	—	—	1	—		
	Nayasal'd	—	—	—	—	—	—	1	—	—	—	1	—		
	Aden	—	—	—	—	1	—	—	—	—	—	1	—	98	7
	Malayasia	—	—	—	—	—	—	—	—	1	—	1	—		
	Tanzania	—	—	—	1	—	1	—	—	—	—	—	2		
	Iraq	2	—	3	—	—	—		—	—	—	5	—		
	Suddan	—	—	1	—	—	—	1	—	—	—	2	—		
	Syria	2	—	—	—	—	—	—	—	—	—	2	—		
	Nigeria	—	—		—	1	—		—	—	—	1	—		
	Lebonan	1	—	—	—	—	—	—	—	—	—	1	—		
	Ceylon	1	—	—	—	—	—	—	—	—	—	1	—		
68-69	Guyana	—	1	—	—	—	—	—	—	—	—	—	1		
	S. Yamen	—	1	—	—	—	—	—	—	—	—	—	1		
	S. Arabia	9	2	13	—	1	—	3	—	6	—	30	2		
	Iran	5	1	3	—	8	—	2	—	2	1	20	2		
	Jordan	—	—	7	—	7	—	3	—	2	—	19	—		
	S. Africa	2	—	1	—	3	—	3	1	4	—	13	1		
	E. Africa	—	—	—	—	—	—	—	—	1	—	1	—		
	Kenya	—	1	—	—	—	1	—	—	2	—	2	2		
	Uganda	—	—	—	—	1	—	—	—	—	—	1	—		
	Nayasaland (Malavi)	—	—	—	—	—	—	—	—	1	—	1	—		
	Aden	—	—	—	—	—	—	1	—	—	—	1	—	105	12
	Malaysia	—	—	—	—	—	—	—	—	1	—	1	—		
	Tanzania	—	1	—	—	—	1	—	1	—	—	—	3		
	Iraq	3	—	2	—	1	—	—	—	—	—	6	—		
	Sudan	1	—	—	—	1	—	—	—	1	—	3	—		
	Syria	—	—	2	—	—	—	—	—	—	—	2	—		
	Nigeria	—	—	—	—	—	—	1	—	—	—	1	—		
	Lebonan	1	—	1	—	—	—	—	—	—	—	2	—		
	Ceylon	—	—	1	—	—	—	—	—	—	—	1	—		

Year	Name of the Country	I Year		II Year		III Year		IV Year		V Year		Total.		Grand Total	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	Saudi Arabia ..	14	1	10	2	11	—	—	—	4	1	39	3		
	Iran	5	2	4	—	5	—	6	—	2	—	22	2		
	Jordan (including Kuwait)	3	—	2	—	8	—	4	—	3	—	21	—		
	South Africa ..	—	—	4	—	2	—	1	—	3	1	10	1		
	East Africa	—	1	1	—	—	—	—	—	1	—	2	1		
	Kenya	—	—	—	—	—	—	—	1	—	—	—	1		
	Uganda	—	1	—	—	—	—	1	—	—	—	1	1		
69-70	Aden	—	—	—	—	—	—	—	—	1	—	1	—	119-14	
	Malayasia	—	—	—	—	—	—	—	—	1	—	1	—		
	Tanzania	—	—	—	1	—	—	1	1	—	1	1	3		
	Iraq	2	—	5	—	—	—	1	—	—	—	8	1		
	Sudan	—	—	1	—	—	—	1	—	—	—	2	—		
	Syria	2	—	1	—	1	—	—	—	—	—	4	—		
	Nigria	—	—	—	—	—	—	—	—	1	—	1	—		
	Lebanon	1	—	1	—	1	—	—	—	—	—	3	—		
	Ceylon	—	—	—	—	1	—	—	—	—	—	1	—		
	U. A. R.	1	—	1	—	—	—	—	—	—	—	2	—		
	Guyana	—	—	—	1	—	—	—	—	—	—	—	1		
	South Yamen ..	—	—	—	1	—	—	—	—	—	—	—	1		

Year	Name of the Country	I Year		II Year		III Year		IV Year		V Year.		Total		Grand Total	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
	Saudi Arabia ..	17	2	22	2	8	1	5	—	4	—	56	5		
	Iran	4	—	8	2	5	—	1	—	8	—	26	2		
	Jordan (including Kuwait)	3	—	5	1	6	—	4	—	9	—	27	1		
	South Africa ..	—	—	1	—	2	—	2	—	4	1	9	1		
	E. Africa	—	—	1	1	—	—	—	—	1	—	2	1		
	Central Africa ..	—	—	—	—	—	—	—	—	1	—	1	—		
	Kenya	—	—	—	—	—	—	—	—	—	1	—	1		
	Uganda	—	—	—	1	—	—	—	—	1	—	1	1		
70-71	Aden	—	—	—	—	—	—	—	—	1	—	1	—		
	Malayasia	—	—	—	—	—	—	—	—	1	—	1	—	155-18	
	Tanzania	—	—	—	—	—	1	—	—	1	2	1	3		
	Iraq	—	—	7	—	—	—	—	—	1	—	8	—		
	Sudan	1	—	1	—	—	—	—	—	1	—	3	—		
	Syria	—	—	3	—	1	—	—	—	—	—	4	—		
	Nigeria	—	—	—	—	—	—	—	—	1	—	1	—		
	Lebanon	—	—	2	—	1	—	—	—	—	—	3	—		
	Ceylon	—	—	—	—	—	—	1	—	—	—	1	—		
	U. A. R.	—	—	2	—	—	—	—	—	—	—	2	—		
	Guyana ..	—	—	—	1	—	—	—	—	—	—	—	1		
	South Yamen ..	—	—	—	—	—	—	—	1	—	—	—	1		
	Mauritious ..	5	—	—	—	—	—	—	—	—	—	5	—		
	Abu Dhabi	1	—	—	—	—	—	—	—	—	—	1	—		
	Bahrain	1	1	—	—	—	—	—	—	—	—	1	1		
	Nepal	1	—	—	—	—	—	—	—	—	—	1	—		

Number of Annual College Graduates

YEAR	Male	Faemale	Total
1950	9	3	12 (Ist Batch of Graduates)
1951	8	3	11
1952	30	5	35
1953	59	14	73
1954	27	7	34
1955	51	22	73
1956	90	18	108
1957	85	25	110
1958	101	35	136
1959	98	28	126
1960	120	34	154
1961	118	40	158
1962	125	21	146
1963	118	37	155
1964	107	33	140
1965	124	40	164
1966	111	37	148
1967	92	32	124
1968	132	48	180
1969	157	45	202
1970	64	32	96
Total :	1826	559	2385

When you prescribe Penbritin you now have 2,000 second opinions

There are now 2,000 references relating to Penbritin. They show an unequalled record of effectiveness over a wide range of respiratory, urinary tract and other infections.

Penbritin is one of the safest broad-spectrum antibiotics currently available. It is being used to treat the young and the elderly, neonates, pregnant patients and even those in renal failure.

Continually rising demand, world-wide, has made it possible to manufacture Penbritin more economically. As the references have mounted up, the price has come down.

Further information is available on request.

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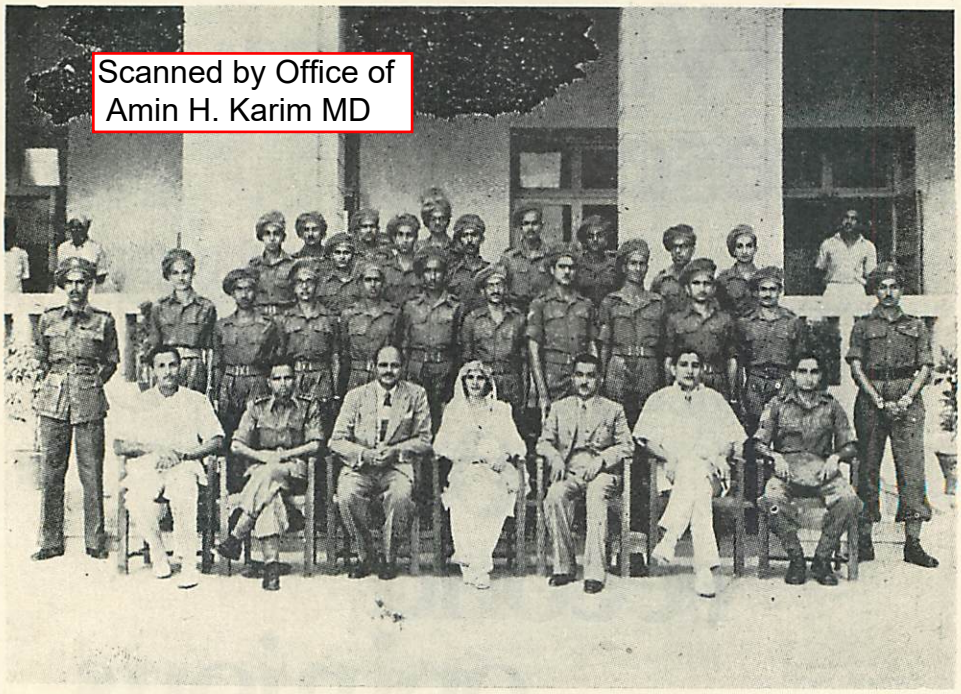
*regd.

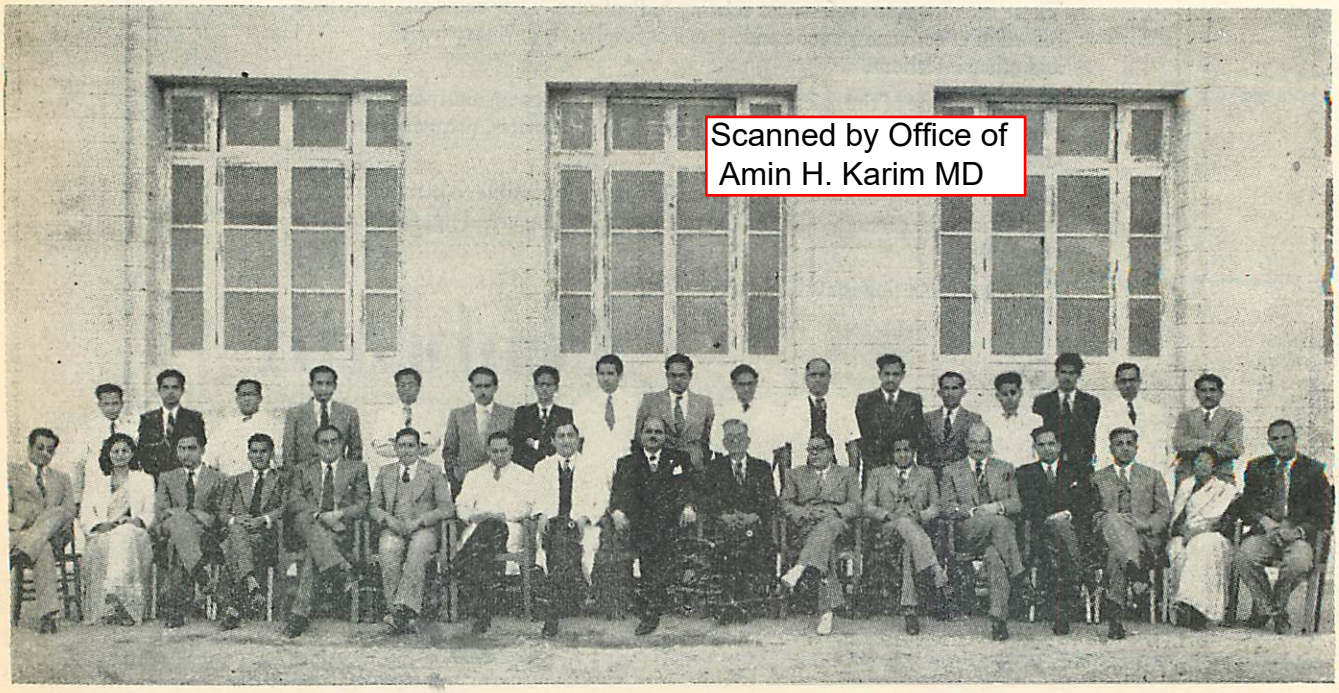
P/PAK/P/3/70

ASIATIC

The Dow Medical College Detachment of U.O.T.C.—1948-49



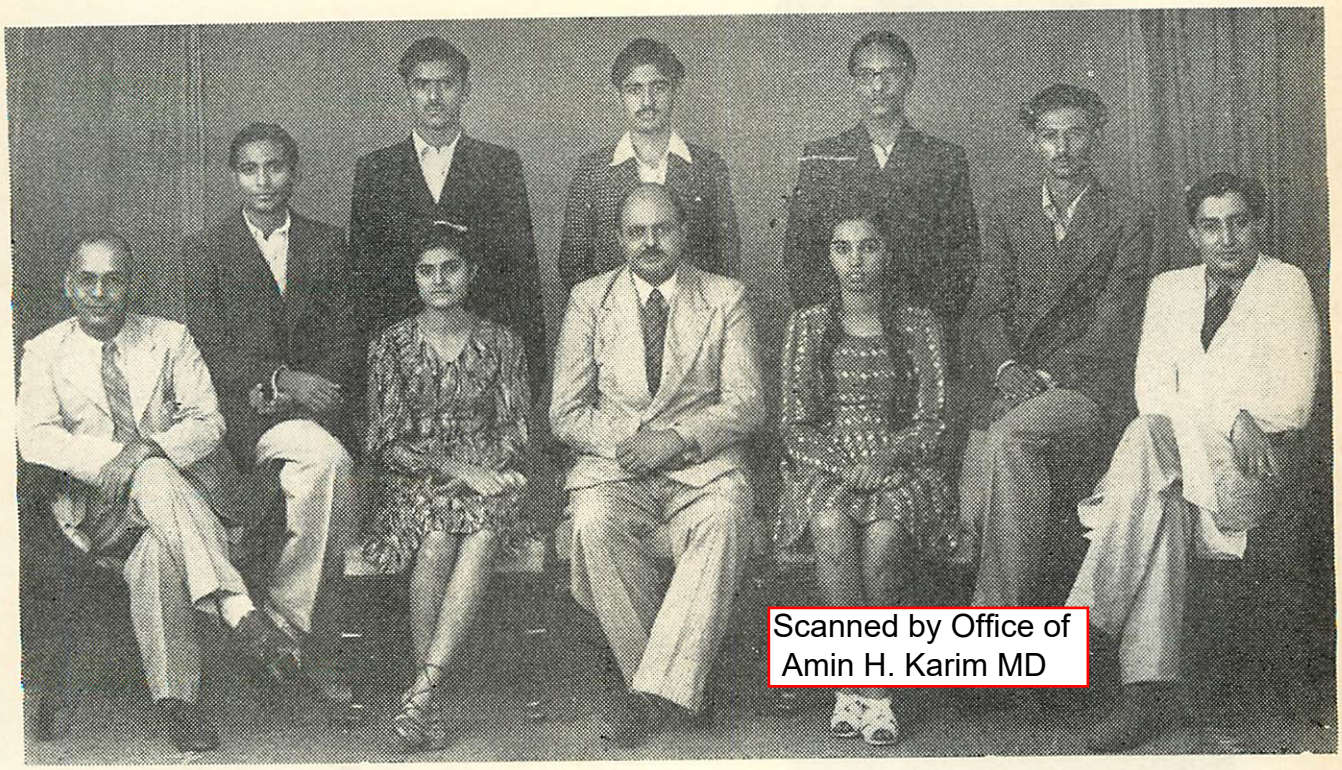
Photographed with Late Miss Fatima Jinnah.



First Batch of Teaching Staff after Partition.

PIONEER

Dow Medical College Students' Union 1945



(Sitting L to R:] *Dr. B.C. Bose,* (*V. President*) *Mr. G.J. Thekur,* (*Gen. Secretary*) *Miss. S.H. Shahani,* (*Secy. Badminton*) *Maj. A.K.M. Khan* (*President*)
Miss S.W. Alimchaudani. (*Secy. Indoor*). *Mr. R.D. Kewalramani,* (*Secy Hockey*) *Dr. M.A. Shah* (*Treasurer*)

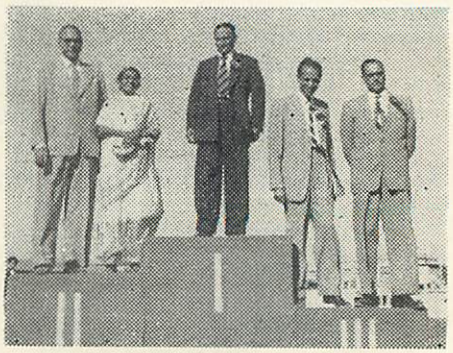
(Standing L to R] *Mr. J.C. Tethami,* (*Secy. Tennis*) *Mr. D.L. Keswani,* (*Secy. Cricket*) *Mr. N.D. Murzein* (*Secy. Football*).

INAUGURATION

Col. Jalal M. Shah Inspector General of Medical College.

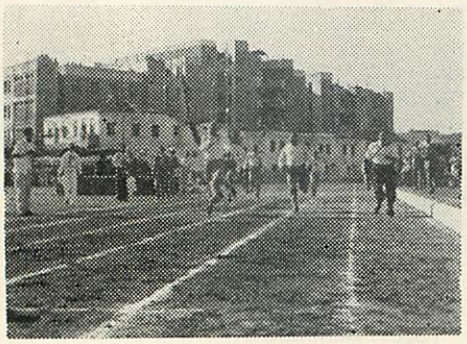
STAFF SPORT

VICTORY



Administrator, Prof. A. Waheed on Top followed by Prof. Miss Siddiqui, and Surgeon Amanullah Khan.

TRACK:

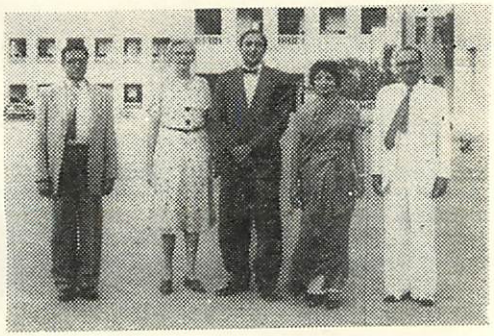


Prof. Wahid on lead!

TUG OF WAR

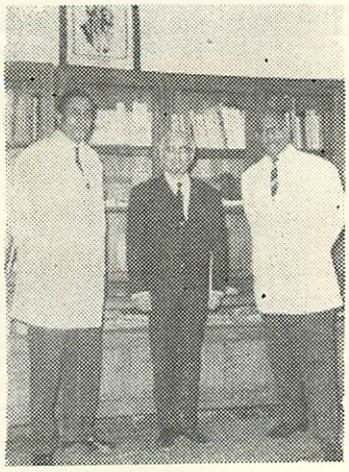
Every action, has an equal and opposit reaction.

PANORAMIC VISITOR'S BOOK



Dr. Helen Taussing, Cardiologist U.S.A. (1956)

Madam Li. Teh Chuan, Minister of health V. President All China Democratic Woman's Federation (1955)



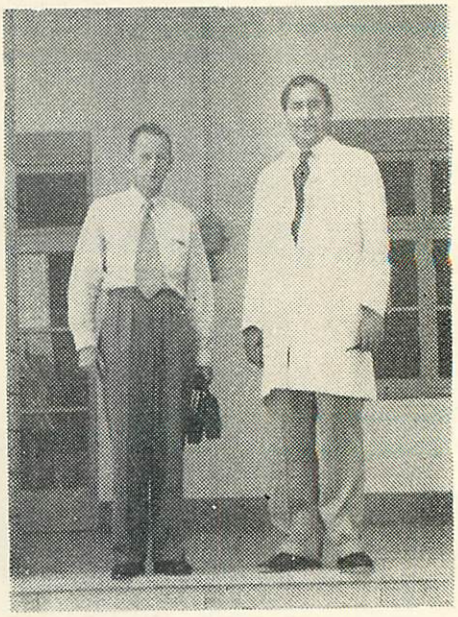
Prof. K. Dana Haeri, Dean of Faculty of Medicine, IRAN (1966)

Dr. Kao Shu Yi, Minister of Health China (1964

(L to R.) *Prof. Jones Sir, T.E. For, Editor Lancet Prof. MaCgraith, Dean of School of Tropical Medicine Liverpool.*

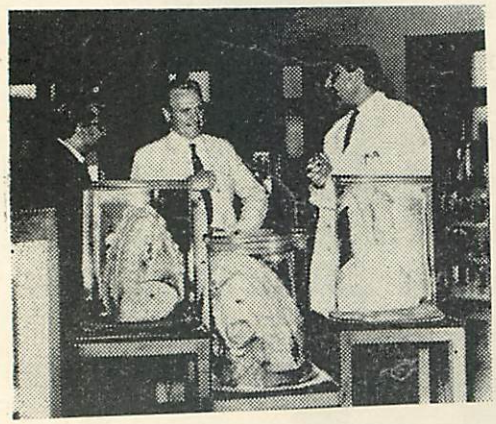
Prof. Shah with H. R. H. Shahanshah of Iran, at Tehran W. H. O. Conference

Prof. Beris Dumbeids of Hungary., —



Mr. Freci, member of Parliamentary Health Committee New Zealand (1955)—

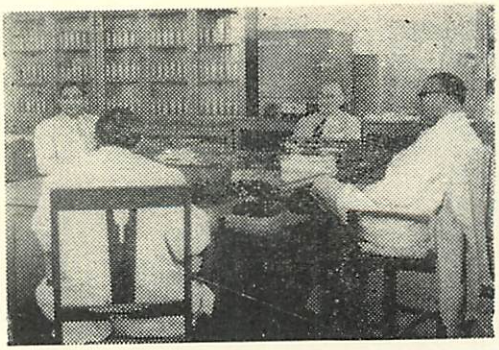
Prof. Wilder Panfield, Canada's famous Neuro Surgeon.



Prof. Edward Grzegorzewski, Head of the Medical Education Div. W.H.O. of Geneva.

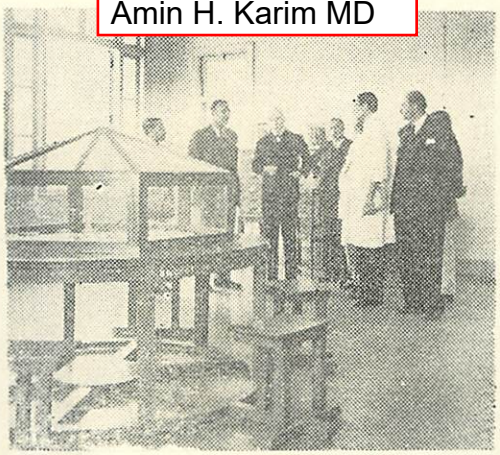
Prof. Jaffcoate, Sir Rowan Boland, Prof. Lawdon, visited the college to get it recognised by Gen. Medical Council, Great Britain 1965.

Dr. J. Weatherall, W.H.O. consultant University of Liverpool (1967)

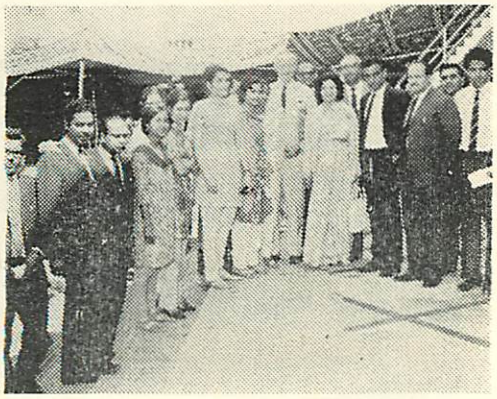


Prof. Charles Wells of Surgery (1957)

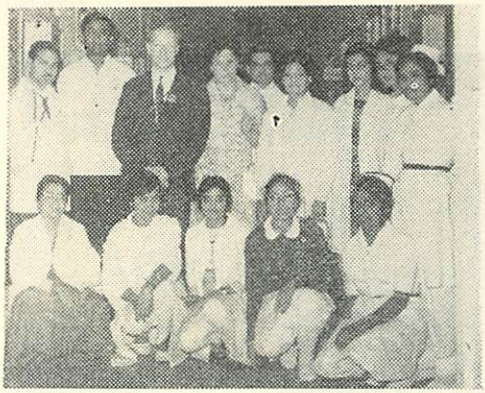
Prof. Souidan and Prof. Haseeb of Sudan (1966)



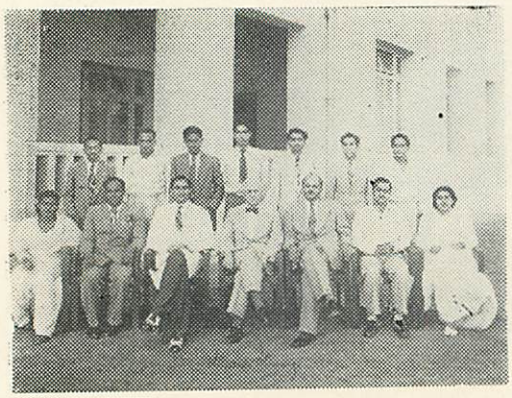
Sir Gerdon Taylor, British famous Surgeon (1951)



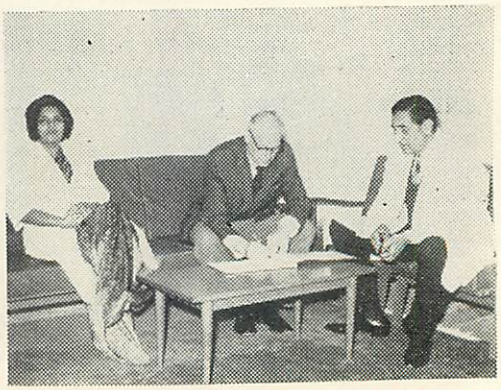
Sir Wilfid Sheldon. Author of Book on paediatric.



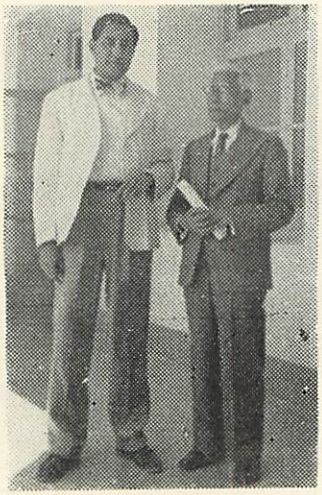
Minister of health U.S.S.R. 4th from left 1968.



Sir Alexander Flaming Discover of Pencillin (1951)



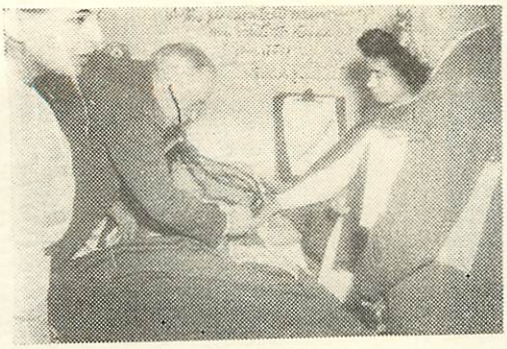
Prof. Wilfrid Gaisford-University of Glassgow.



Prof. Sardjito, Dean of Medical Faculties Indonesia (1955)

Dr. D. Hunter Author of "Hutechison s Clinical Method."

Mrs. Johnson in Paediatic ward (1961)



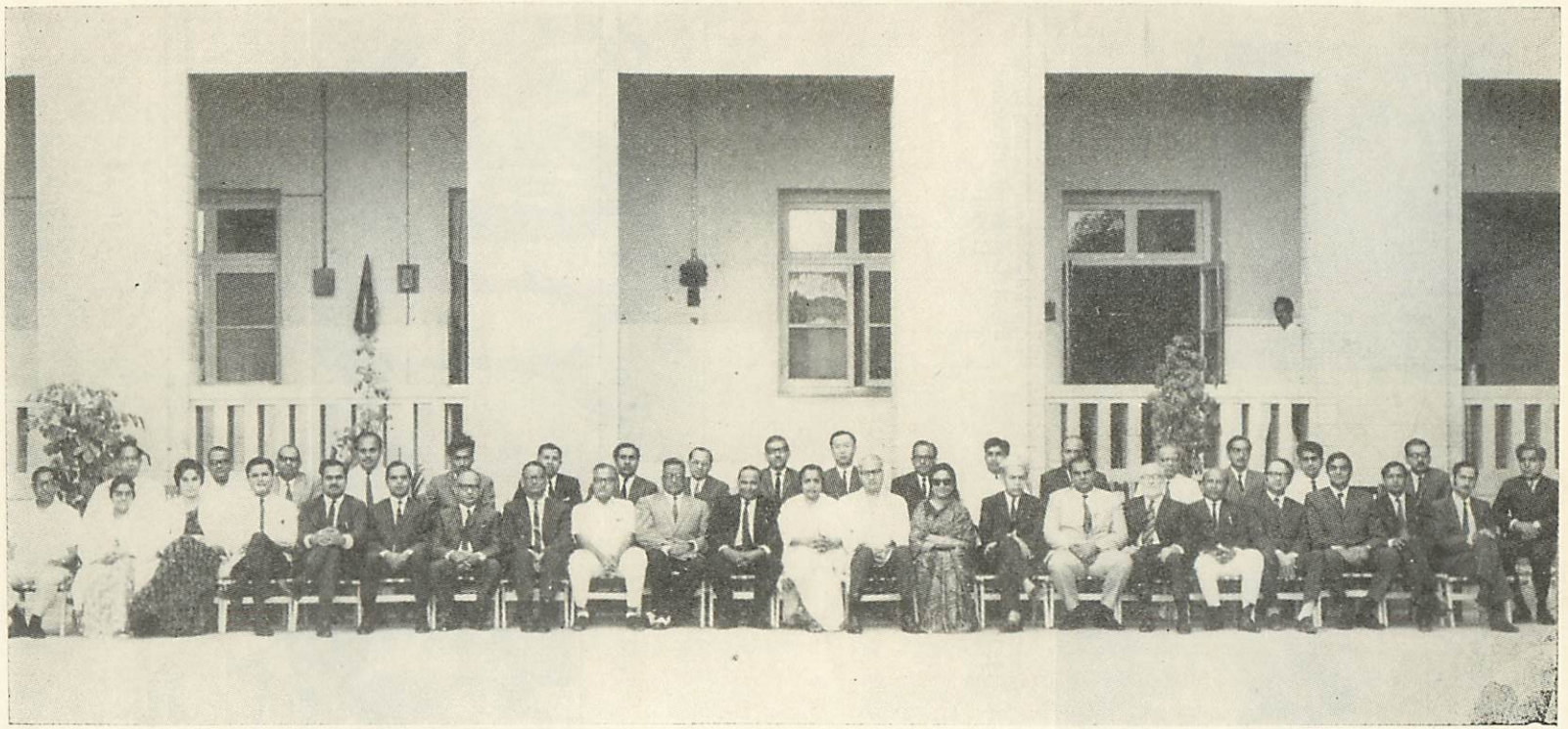
Prof. Paul White, World famous cardiologist of Bostan U.S.A. (1952)

Lord Rosenhien. President of the Royal College of Physicians (1960)

Dr. Douesh Ananda Vabia, Director of Health Services Nepal (1965)

Dinner by Staff to W.H.O. Chief Dr. Canadian and Regional Director Dr. Taba of Iran (1960)

Respected Staff – Silver Jubilee Batch



Front Row (L to R]

(1) *Dr. Izhar ul Hasan Bhutta* (2) *Dr. Mrs. Bilqees* (3) *Dr. Mrs. K.M. Mahmood* (4) *Prof: Kh. Moin Ahmad* (5) *Prof: Nasir Shaikh* (6) *Prof: Fazal Elahi* (7) *Prof: I.H. Jaffery* (8) *Prof: S.M. Yousuf* (9) *Prof: Lt. Col. Najib Khan*, (10) *Prof: S.H. Zaidi* (11) *Prof: A. Wahid, Administrator* (12) *Prof. Mrs. Zubaida Aziz* (13) *Prof: Mushtaq Hasan* (14) *Dr. Mrs. Parvin Zafar* (15) *Prof: S.A.H. Razvi* ((16) *Prof: Salar A. Aziz* (17) *Surg: M.R. Shirazi* (18) *Dr. Omar Khan* (19) *Dr. Ahmed Hassan* (20) *Dr. Irshad Wahid* (21) *Dr. Abdur Rahim* (22) *Dr. Aziz Shoukat Hassan* (23) *Dr. Adeebul Hasan Rizvi.*

Back Row [L to R]

(1) *Dr. Moazam Ali Khan* (2) *Dr. Kashfudooja.* (3) *Dr. Afaq Ahmed* (4) *Dr. Muneer Siddiqui* (5) *Dr. I.H. Bhatti* (6) *Dr. M. Sharif* (7) *Dr. Abdul Khaliq* (8) *Dr. K.M. Durani* (9) *Dr. S. Akmal Farooqui* (10) *Dr. Mohd. Ali Wang* (11) *Dr. Hashm Ali Kazmi* (12) *Dr. Hasnain* (13) *Dr. Zafar Ahmad* (14) *Dr. M.A. Ansari* (15) *Dr. Syed Akhtar* (16) *Dr. A. Hamid* (17) *Dr. S. Rahimtoola.*

Dow Medical College Karachi

Staff of Silver Jubilee

Administrator and Chairman, College Academic Council,

Professor A. Wahid, M. S. (Surg.), M.S. (Anat), F.I.C.S.

TEACHING STAFF

ANATOMY

Prof. and Head of the Department	..	Prof. A. Wahid, MBBS (Luck), M.S. (*Surg*) (Luck.) M.S. (*Anat*) (Luck), F.I.C.S.
Assistant Professors	..	1. Dr. Kashfuddoja, MBBS (Kar), M. Phil. (Anat).
		2. Dr. Moazzam Ali Khan MBBS. (Kar) M. Phil. (Anat).
		3. Dr.....
Assistant Prof. of Histsology :		Dr. Mrs. Bilquess Afazal, M.B.B.S., (Kar), M. Phil. (Anat).
Asstt. Prof. of Applied Surgical Anat. (Part-time)		Dr.————————————
Demonstrators).	..	1. Dr. Mehdi Bux Juma, MBBS (Kar) M. Phil (Anat) (Kar),)(on higher training in Canada).
		2. Dr. Muhammad Rafiq Khan, MBBS. (Pb), (on training in U.K.)
		3. Dr. Miss Rashida Aryne, MBBS (Kar).
		4. Dr. Nasim Ahmed, MBBS. (Kar.)
		5. Dr. Saleem Haque, MBBS (Kar) (under training at J.P.M.C.)
		6. Dr. Samad Ali, MBBS. (Kar.)

PHYSIOLOGY

Professor.	..	Professor S. H. Zaidi, MBBS., M.D.
Assistant Professor	..	Dr. S. Afaq Ahmed, M.B.B.S., (Agra), B.Sc. Med. (Torcnto)
Asstt. Prof. of Biochemistry.		Dr. Shakir Ali Jaffery, M.B.B.S., M. Phil, (Biochemistry).
Demonstrators:	..	1. Dr. S. Ghazanfer Ali, MBBS. (Kar.)
		2. Dr. Noor Muhammad Rabbani, MBBS. (Kar.)
		3. Dr. Syed Akhtar, MBBS. (Kar.)

4. Dr. Mrs. Kausar Bano Rasul, MBBS (Kar)
5. Dr. Mrs. Nazra Shakir, MBBS.,
6. Dr. Miss Fakhar Jehan Farooqi, MBBS.
7. Dr. Mrs. Salim Masud Zaidi, MBBS.
8. Dr. Mrs. Shamim Mahmood, MBBS.

OBSTETRICS AND GYNAECOLOGY

Professors .. 1. Prof. Zubaida Aziz, MBBS (Pb) FRCS. (Edin), FREPS. Glasgow), MRCOG, FRCOG.
2. Prof. Salar Akhtar Aziz, MBBS., DGO (Sublin), MRCOG (Lond), FRCOG.

Assistant Professors .. 1. Dr. A. Majid Memon, MRCOG, FRCS.,
2. Dr. Mrs. Nasim Bano Haque, MBBS, FRCS

OPHTHALMOLOGY

Professor .. Prof. M.M. Hassan, DOMS, FRCS, FCPS.,

Assistant Professor .. Dr. Taj Muhammad Soomro, D.O.,

MEDICINE

Professors .. 1. Professor Mushtaq Hasan, MBBS, (Pb), M.D. (Pb), F.R.C.P. (Edin).
2. Professor Lt. Col. Najib Khan, T. Pk., MBBS (Durham), M.D. (Durham).
3. Prof. Kh: Moin Ahmed, DTM & H., MRCP.

Assistant Professors .. 1. Dr. Shamsuddin Rahimtoola, MRCP,
2. Dr. Abdul Khaliq Khan, MRCP (Glasgow) M.R.C.P. (Lond.)
3. Dr. Malik Ali Shaikh M.R.B.S., M.R.C.P. (G) M.R.C.P. (E) Ph. D.

SURGERY

Professors .. 1. Professor S.A. H. Razvi, MBBS. (Osman). Ch. M. (Liv), FRCS, (Eng), F.C.P.S.,
2. Prof. Fazal Elahi, MBBS (Luck), DTM & H. (Eng.) FRCS (Edin) FICS., FACS.,
3. Prof. Nasir B. Shaikh (FRCS)

Assistant Professors. .. 1. Dr. Mrs. Kishwar Nazli Mahmood, F.R.C.S. (Eng.), F.R.C.S. (Edin.)
2. Dr. Aziz Shoukat Hasan, F.R.C.S.,
3. Dr. Irshad Wahid, M.B.B.S., F.R.C.S., (Edin).

OTO-RHINOLARYNGOLOGY

Professors	..	1. Prof. I.H. Jaffri, DLO (Lond.) FRCS (Eng.)
		2. Prof. M.A. Qayyum, MBBS. (Pb), FRCS, (Edin. DO DIO (Eng.), FICS, FACS.,
Asstt. Prof.	..	Dr. Ahmad Hassan M.B.B.S., FRCS. (Eng.) D.L.O.

ORTHOPADIC SURGERY

Professor	..	Prof. A. Rahim T.Q.A. M. Ch. (Orth), (Liv). F.R.C.S. (Lond.) F.C.P.S.,

PHARMACOLOGY AND THERAPEUTICS

Professor.	..	Professor Sh. Muhammad Yousuf, MBBS., M. Phil., (Kar.) Ph. D. (U.S.A.).
Assistant Professors :		1. Dr. A. S. Chohan, M.B.B.S., (Pb)., M. Phil., Pharm., (Kar.)
		2. Dr. Abdul Hameed, MBBS., Ph. D.,
Demonstrators :	..	1. Dr. Muhammad Ahmed Khan, MBBS.,
		2. Dr. Mrs. Quresha Moin, MBBS.,
		3. Dr. Mrs. Shahnaz Hamid, MBBS.,
		4. Dr. Sirajul Haque, MBBS.,
		5. Dr. M.A. Majid, MBBS.,

PATHOLOGY

Assistant Prof. of Chemical Path		Dr. Izharul Hasan Bhutta, MBBS, (Kar) M. Phil (Biochemistry) try) (Karachi).
Asstt. Prof. of Haemotology	..	Dr. Mrs. Perveen Zafar, M.B.B.S., (Pb.)
Asstt. Prof. of Pathology. Pathology.		Dr. Azamatullah Khan, M.B.B.S. (Kar.) M. Phil (Path.) (Kar.)
Asstt. Prof. of Microbiology	.. ..	Dr. Hashim Ali Kazmi, M. Phil.
Curator of Museum		
Demonstrators.	..	1. Dr. Mrs. Ijaz Habib Ahmed, MBBS (Kar.)
		2. Dr. Muhammad Mustafa, MBBS, (Kar.) D. Bact., (on deputation to Libya).
		3. Dr. Syed Shahid Ali, B. Sc., MBBS., M. Phil. Micro (Kar.) M.S. (Path) (USA).
		4. Dr. Badar Jehan Farooqui, MBBS (Sind)
		5. Dr. Mrs. Salma Akram, MBBS., (Kar).
		6. Dr. Anwar Ali Lanewala, MBBS.,
		7. Dr. S. Zakir Husain Zaidi, M.B.B.S.,
		8. Dr. Miss. Nusrat Banhir, M.B.B.S.,
		9. Dr. Mrs. Zakia Zia, M.B.B.S.,
		10. Dr. Miss Hasina N. Thawerani M.B.B.S.)

HONORARY PROFESSORS:

CARDIOLOGY

Asstt. Prof. .. Dr. M. Sharif Choudhry, MBBS., (Pb) MRCP., (Glasgow), MRCP., (Edin).

SURGERY

Honorary Professor .. Lt. Col Said Ahmed, F.R.C.S. F.C.P.S., F.I.C.S., F.A.C.S.,

SPECIALISTS:

THORACIC SURGERY

Assistant Professor: .. Dr. M.R. Shirazi, M.B. M.B. (Lond), MRCS (Eng.) L.R.C.P. F.R.C.S., (London).

DERMATOLOGY

Asstt. Prof. .. Dr. Syed Zafar Ahmed, M.B.B.S., (Kar.) M.R.C.P. (Edin. D.T.M. & H, (Eng.)

PLASTIC SURGERY

Asstt. Professor .. Dr. Khalid Mahmood Durrani, FRCS.,

UROLOGY

Asstt. Professor .. Dr. Fateh Khan Akhtar, MBBS., FRCS.

NEURO-SURGERY

Asstt. Prof. .. Dr. Iqtidar Hamid Bhatti, MBBS., FRCS.,

PAEDIATRICS

Asstt. Prof. .. Dr. A. Ghaffar Billoo, MBBS., DTM&H., DCH., MRCP. (E) MRCP.. (G.)

Asstt. Prof. .. Dr. Akhtar Ahma, MBBS., MRCP.,

PART TIME PROFESSORS

PREVENTI4E MEDICINE, HYGIENE AND SOCIAL MEDICINE:

Part-Time Professor .. Professor.

Asst. Prof. of Preventive Med. Dr. M.A. Ansari, M.B.B.S., (Pb)., D.P.H. (London).

Demonstrators: .. 1. Dr. Rafi Muhammad Khan, MBBS., DPPH.,
2. Dr. Khalid Habib Khan, MBBS.,

Health Educator

Med. Social Worker .. Mrs. Rifat Siddiqui

FORENSIC MED: AND TOXICOLOGY

Police Surgeon Dr. Muhammad Umer Khan, MBBS, DTM & H.

Demonstrators: .. 1. Dr. M. Saeed Akmal Farooqui, MBBS., (Kar).
2. Dr. Muhammad Ali Wang, MBBS., (Kar.)

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Thiamine HCI ..	100 mg.	100 mg.	100 mg.
Riboflavin ..	1 mg.	1 mg.	1 mg.
Nicotinamide ..	100 mg.	100 mg.	100 mg.
Vitamin B-6 ..	1 mg.	1 mg.	1 mg.
Rice Bran Concentrate ..	10 mg.	10 mg.	10 mg.
Benzyl Alcohol ..	2 %	2 %	2 %
Phenol ..	0.5 %	0.5 %	0.5 %
Procaine HCI ..	1 %	1 %	1 %
Sodium Chloride ..	0.9 %	0.9 %	0.9 %
Vitamin B-12 ..	———	250 mcg.	1000 mcg.

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INDICATION : Relieves hot flashes and associated symptoms, such as; cramps. pain, backache and similar distress, when not due to organic disease,

DOSE : one or two teaspoonfuls three times a day or as advised by Physician.

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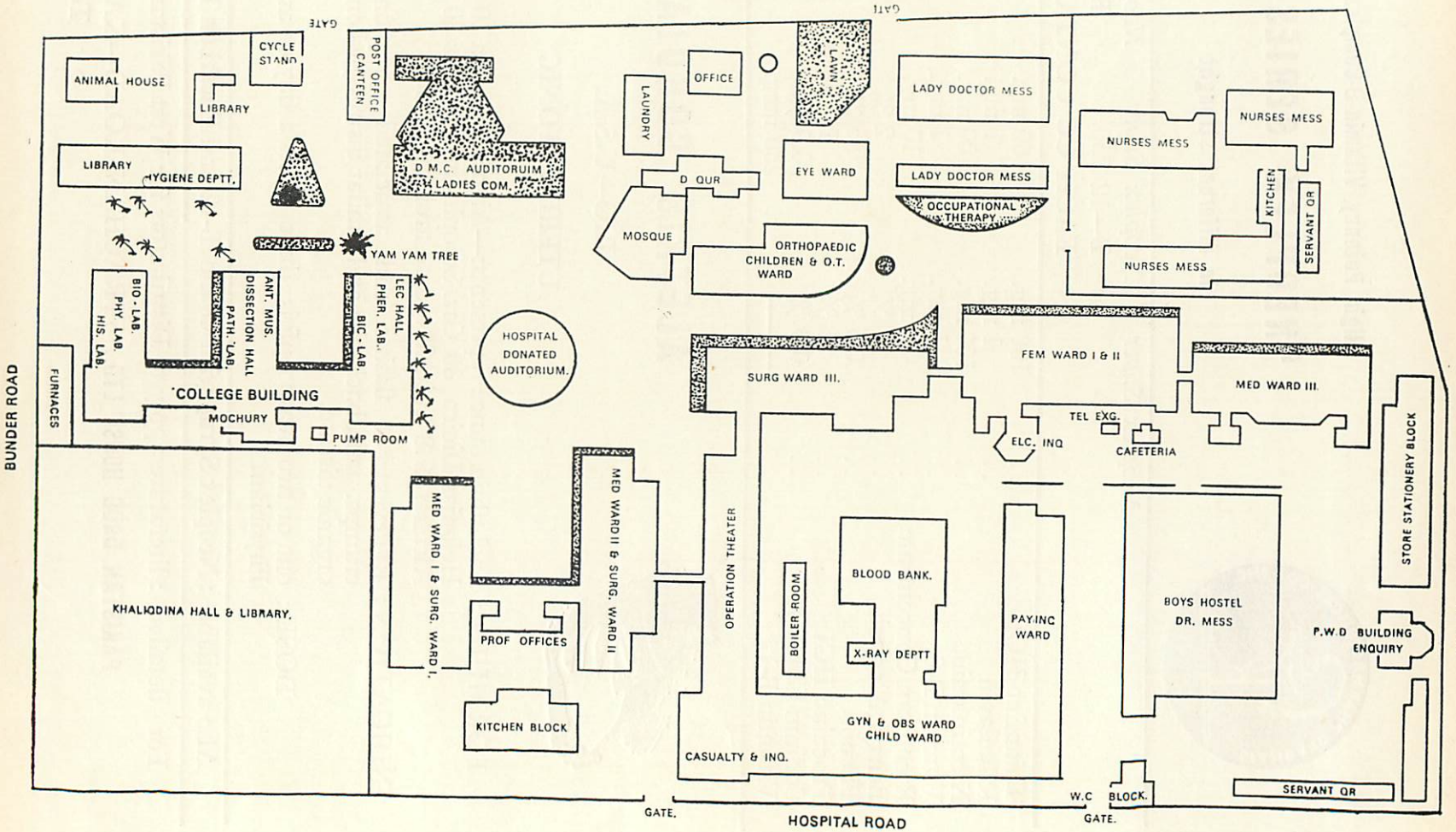
KEY PLAN OF
CIVIL HOSPITAL & DOW MEDICAL COLLEGE

AT KARACHI **SCALE 20 FT. = 1 IN.**



ORGANISATION CHART

DOW MEDICAL COLLEGE KARACHI

ADMINISTRATOR
DOW MEDICAL COLLEGE
CHAIRMAN ACADEMIC CONCIL

ASSTT. ACCOUNTS OFFICER

ADMINISTRATIVE OFFICER

COLLEGE OFFICE

ACCOUNT BRANCH	GENERAL BRANCH	ESTABLISHMENT BR.	STENOGRAPHER	STUDENTS BRANCH	STORES PURCHASE BR.
ACCOUNTANT ... 1	U.D.C. ... 1	U.D.C. ... 1		U.D.C. ... 2	STORE KEEPER ... 1
U.D.C. CUM-CASHIER 1	L.D.C. ... 3	L.D.C. ... 3		L.D.C. ... 2	ASSTT. STORE KEEPER ... 1
L.D.C. ... 2					L.D.C. ... 2

DEPARTMENTS ETC.

CLINICAL DEPARTMENTS

OTHER SPECIALITIES ETC

PROFESSORIAL UNITS

OPHTALMOLOGY	EAR NOSE & THROAT	OBSTETRICS & GYNAECOLOGY	SURGERY
PROFESSOR ... 1	PROFESSORS ... 2	PROFESSORS ... 3	PROFESSORS ... 3
ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ... 1	HONY. PROFESSOR 1
			ASSTT. PROFESSORS ... 3

ORTHOPAEDIC	CARDIOLOGY	MEDICINE
PROFESSOR ... 1	HONY. PROFESSOR ... 1	PROFESSORS ... 3
	ASSTT. PROFESSOR ... 1	ASSTT. PROFESSORS ... 3

NEUROLOGY	VENEREAL DISEASES	PLASTIC SURGERY	PAEDIATRICS	UROLOGY
ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR

THORACIC SURGERY.
ASSTT. PROFESSOR 1

DERMATOLOGY	NEURO-SURGERY	TUBERCULOSIS
ASSTT. PROFESSOR ... 1	ASSTT. PROFESSOR ...	PART-TIME ASSTT. PROF. 1
PART-TIME ASSTT. PROF. ... 1		

BASIC DEPARTMENTS

ANATOMY		PHYSIOLOGY	
PROFESSOR	1	PROFESSOR	1
ASSISTANT PROFESSORS	3	ASSISTANT PROFESSOR	1
ASSITANT PROF. OF HISTOLOGY	1	ASSTT. PROF. OF EXPERIMENTAL PHY.	1
ASSTT. PROF. APPLIED SURGICAL ANAT.	1	ASSTT. PROF. OF BIOCHEMISTRY	1
DEMONSTRATORS	12	DEMONSTRATORS	9
ARTIST	1	ARTIST	1
TECHNICIANS	5	MEDICAL TECHNOLOGIST	1
MODELLER	1	TECHNICIANS	5
L.D.C.	1	L.D.C.	1
EMBALMER	1	GESTETNER OPERATIVE	1
LABORATORY ATTENDANTS	7	LABORATORY ATTENDANTS	3
MEDICAL TECHNOLOGIST	1	CLEANERS/SWEEPERS	4
CLEANERS/SWEEPERS	8		

ASSISTANT STORE KEEPER ... 1

PHARMACOLOGY & THERAPEUTICS		PATHOLOGY	
PROFESSOR	1	PROFESSOR	1
ASSISTANT PROFESSORS	2	ASSISTANT PROFESSOR	1
DEMONSTRATORS	6	ASSTT. PROF. BACTERIOLOGY	1
PHARMACEUTICAL CHEMIST	1	ASSTT. PROF. HAEMATOLOGY	1
ARTIST	1	ASSTT. PROF. CHEMICAL PATHOLOGY	1
TECHNICIANS	4	DEMONSTRATORS	9
L.D.C.	1	CURATOR OF MUSEUM	1
LABORATORY ATTENDANTS	5	ARTIST	1
CLEANERS/SWEEPERS	2	TECHNICIANS	5
		L.D.C.	1
		LABORATORY ATTENDANTS	4
		CLEANERS/SWEEPERS	7

ASSISTANT STORE KEEPER ... 1

FORENSIC MEDICINE & TOXICOLOGY		HYGIENE & PREV. MEDICINE		PSYCHIATRY
PART-TIME PROFESSOR	1	PART-TIME PROFESSOR	1	PART-TIM PROFESSOR ... 1
DEMONSTRATORS	2	ASSTT. PROF. OF FREQUENTLY MEETINGS	1	
PEON	1	DEMONSTRATOR	2	
		MEDICAL SOCIAL WORKER	1	
		HEALTH EDUCATOR	1	
		STENOTYPIST	1	
		PEON	1	
		CLEANER	1	

OTHER ALL ED DEPARTMENTS ETC.

LIBRARY		MAIN OFFICE		MAIN LECTURE HALLS		BOYS COMMON ROOM		GIRLS COMMON ROOM		COLLEGE COMPOUND		PHOTOGRAPHIC DEPARTMENT	
LIBRARIAN	1	RECORD SECTION	1	PEON	2	PEON	1	PEON	1	CHOWKIDARS	3	MEDICAL PHOTOGRAPHER	1
L.D.C.	1	DAFTRI	1	SWEEPER	1			SWEEPRESS	1	RANGERS	2	PHOTOGRAPHIC TECHNICIAN	1
PEONS	2	GESTETNER OPERATOR	1							MALES	2	DARK ROOM ATTENDANT	1
		PEONS	9							SWEEPERS	4		
		DHOBI	1										

MOTOR GARAGES		ANIMAL HOUSE	
MOTOR DRIVERS	4	ANIMAL ATTENDANTS	2
MOTOR CLEANERS	4	CLEANER	1

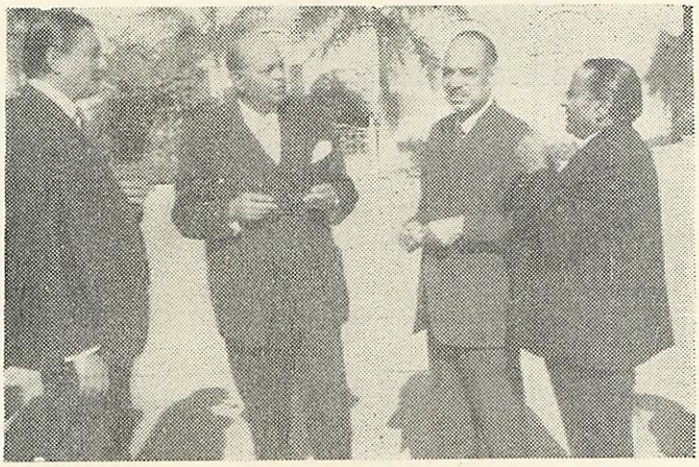
HOSTELS

BOYS NEW HOSTEL III		BOYS NEW HOSTEL II		GIRLS HOSTEL		BOYS HOSTEL I		BOYS NEW HOSTEL IV	
PART-TIME WARDEN	1	PART-TIME WARDEN	1	PART-TIME WARDEN	1	PART-TIME WARDEN	1	PART-TIME WARDEN	1
PART-TIME SUPERINTENDENT	1			PART-TIME SUPERINTENDENT	1	PART-TIME SUPERINTENDENT	1	PART-TIME SUPERINTENDENT	1
CHOWKIDARS	2	BUTLER	1	COOK	2	COOK	1	COOKS	4
LASCARS	5	COOK	1	CHOWKIDAR	1	CHOWKIDARS	2	ASSISTANT BUTLER	1
HOSTEL SERVANTS	4	ASSISTANT BUTLERS	2	SAMOSIAS	2	HAMMALS	5	LASCARS	5
SWEEPERS	2	LASCARS	4	ASSISTANT BUTLERS	2	CLEANER	1	CHOWKIDARS	2
		CHOWKIDARS	2	LASCARS	3	SWEEPERS	3	MALES	1
		MALES	1	PEON	1			HOSTEL SERVANTS	4
		HOSTEL SERVANTS	2	HAMMAL	1			CLEANER	1
		SWEEPERS/CLEANERS	3	MALES	1			SWEEPERS	2
				SWEEPERS	2				

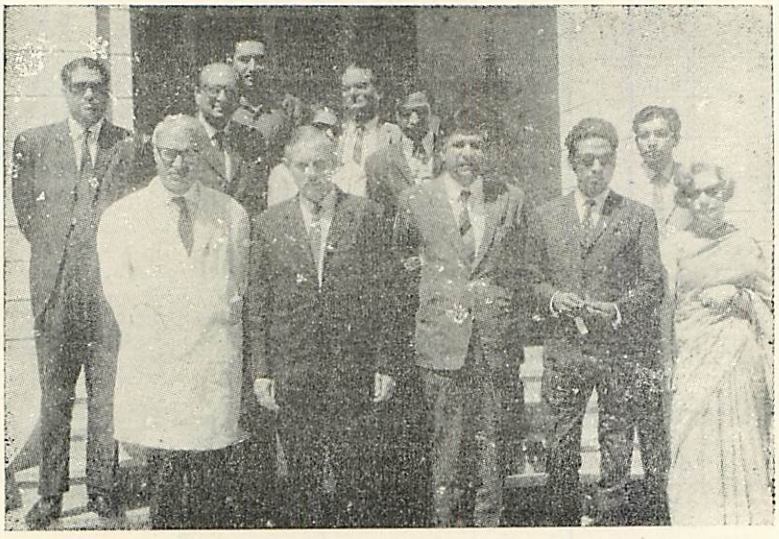
ASSISTANT STOREKEEPER ... 1

4574-2

Visitars' Gallery

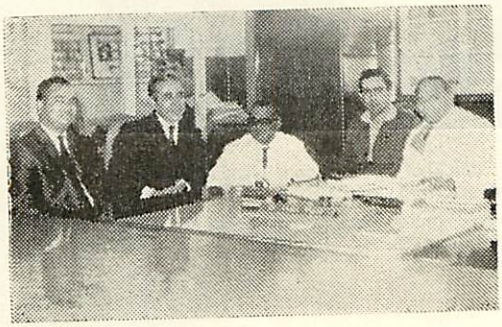


Principals may come and Principals may go, but I'll go on for ever.

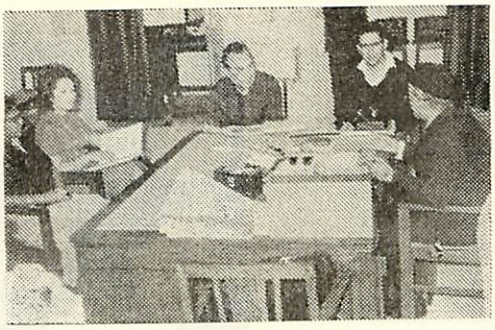


Prof. Corstair, professor of Phyciatery and a leading Psychologist of U. K.

Mr. Manzoor Elahi, Chief Secretary, Govt. of Sind along with Staff and Students' Union.



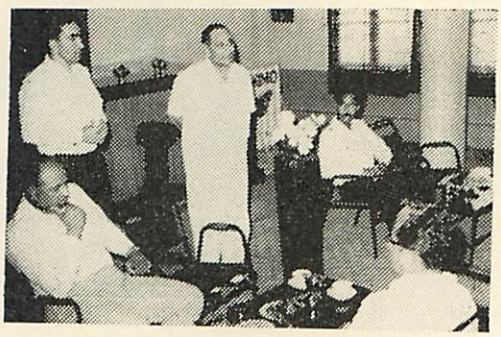
Professor of Anatomy of Tehran University along with Prof. Wahid & Dr. Kashfuddoja



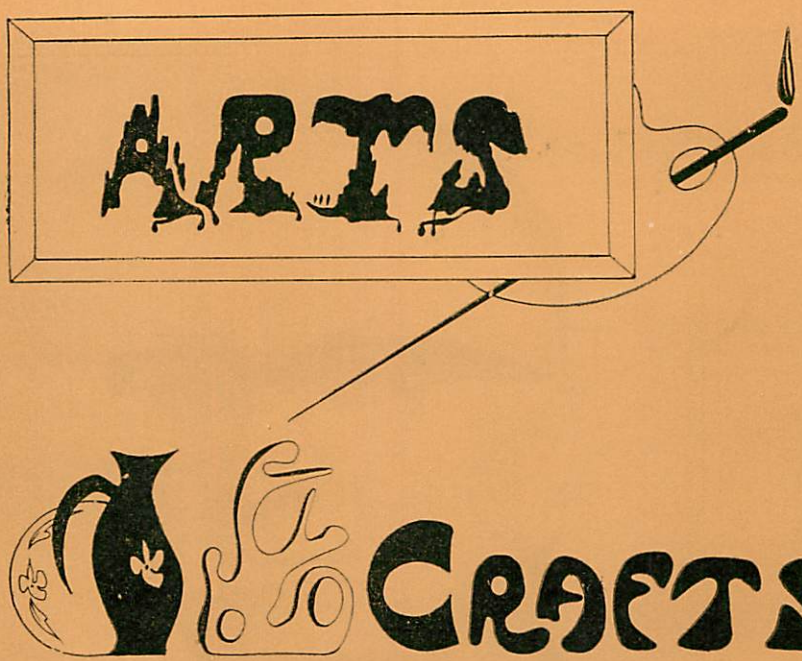
Dr. & Mrs. Hadi Adham.
Director General Clinical Services Ministry of Health, Iran, with Prof. Ansari in the Hygiene deptt.

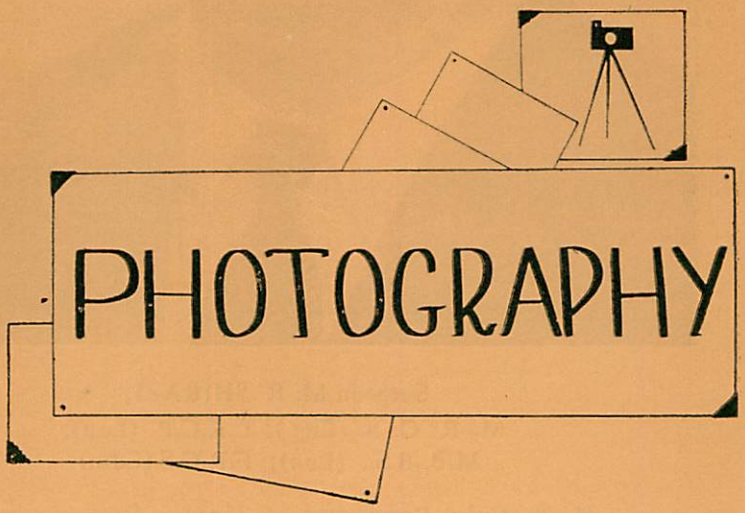
Plenary Session of the IInd International World Health Education Conference.
From (R. to L.) Col. N. H. Qamar, Prof. A. Wahid, Prof. Saleh A. Memon Prof. Naziruddin Ahmed & Prof. Aziz Wine.

Scanned by Office of
Amin H. Karim MD

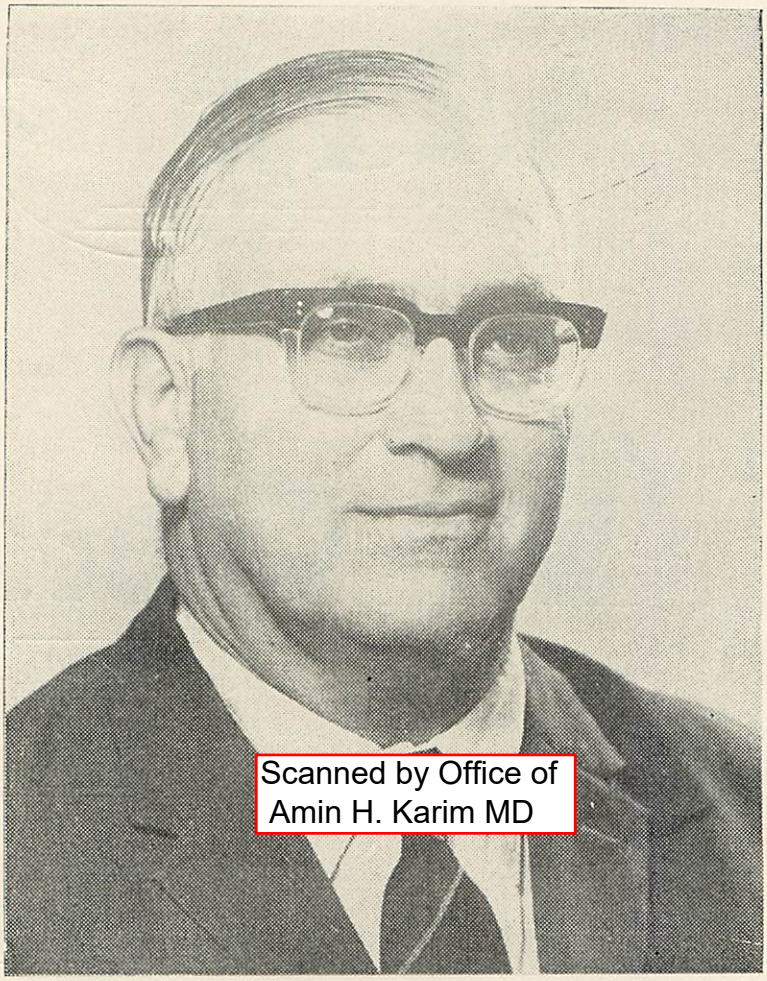


Prof. A. Wahid, Patran, inaugrating the Dow Medical College Student's Union Canteen.





Chairman Writer's Forum



Surgeon M. R. SHIRAZI,
M. R. C. S. (Eng.); L.R.C.P. (Lon);
M.B.,B.S., (Lon); F.R.C.S.(Edn.)

Head of the Department of Thoracic Surgery,
Dow Medical College, and Civil Hospital.
Visiting Surgeon: Tubercolosis Training Centre
and
Ojha Sanatorium, Karachi.

DR. M. R. Shirazi born in Madras in 1916, comes from a well known Iranian family. Did his early education from Madras Christian College and Intermediate from Govt. Mohammadan College with Logic Roman and Greecian histories as his subjects with distinctions and then within nine months did his Pre-Medical subjects topping his class. Coming from a conservative family he had his share of grinding in Persian, Theology and Caligraphy at the family "Maktab". No wonder he is a man of extensive general knowledge.

He joined the Madras Medical College in the year 1935—the centenary year of the college—and did his First Professional Examinations. Then he suddenly decided to do his Clinical training abroad and left for England in 1937. There as they recognise only the courses of studies, he had to take all the Examinations again viz. London Matric, Intermediate Science, 1st and 2nd Professionals, which he did all in one year successfully from the University College, London. He did his clinical training under some very able teachers from St. Bartholomew Hospital. London. He took the graduation examination of the Royal College and of the London University all at the same time in the thick of bombing in 1942.

Being war years he joined the Emergency Medical Service and worked at various hospitals in the very heart of London admist the historic bombing and has many a tale of his narrow escapes from the jaws of death. It was an opportune time for one with a surgical bend of mind and he gained considerable experience in dealing with war casualities and transfusions working two and three days at a stretch in the theatres.

War over, in 1946 he had to leave for home as abruptly as he went, due to his father's illness. Not finding any passage on passenger ships he managed a working passage on a low tonnage cargo boat as the Medical Officer of the ship, with all its authority and privileges. He cannot forget the improvised surgical techniques he had to employ enroute.

In 1948 he migrated to Pakistan, and joined the Jinnah Central Hospital as Resident Surgeon and after a year he was selected in open competition for training in Thoracic Surgery and obtaining his Fellowship. During 1950 to 1954 he did his training in Thoracic Surgery at the Brompton Hospital, and the Thoracic Surgical Unit of St. Bartholomew Hospital, his Fellowship of the Royal College of Surgeons, Edinburgh and two years of appointments at the London Regional Thoracic Unit, Manchester Regional Thoracic Unit and Grove Park chest Unit for tubercolosis. On return home he was appointed Asstt. Professor, Dow Medical College and attached as associate Surgeon to Jinnah Central Hospital. In 1958 he was transfered to Civil Hospital where he continues to date. He has been the first and only trainee in Thoracic Surgery in Pakistan and the first incumbent of the Thoracic Surgery speciality in Karachi. He heads the Thoracic Unit at the Civil Hospital and the Surgical Wing of the Ojah Sanatorium, Karachi. He has written many papers in his field which have been read at various Conferences and Semiars. He is Patron-in-Chief of one of our well circulated Medical Journals—The Medical Forum and also its Honorary Editor.

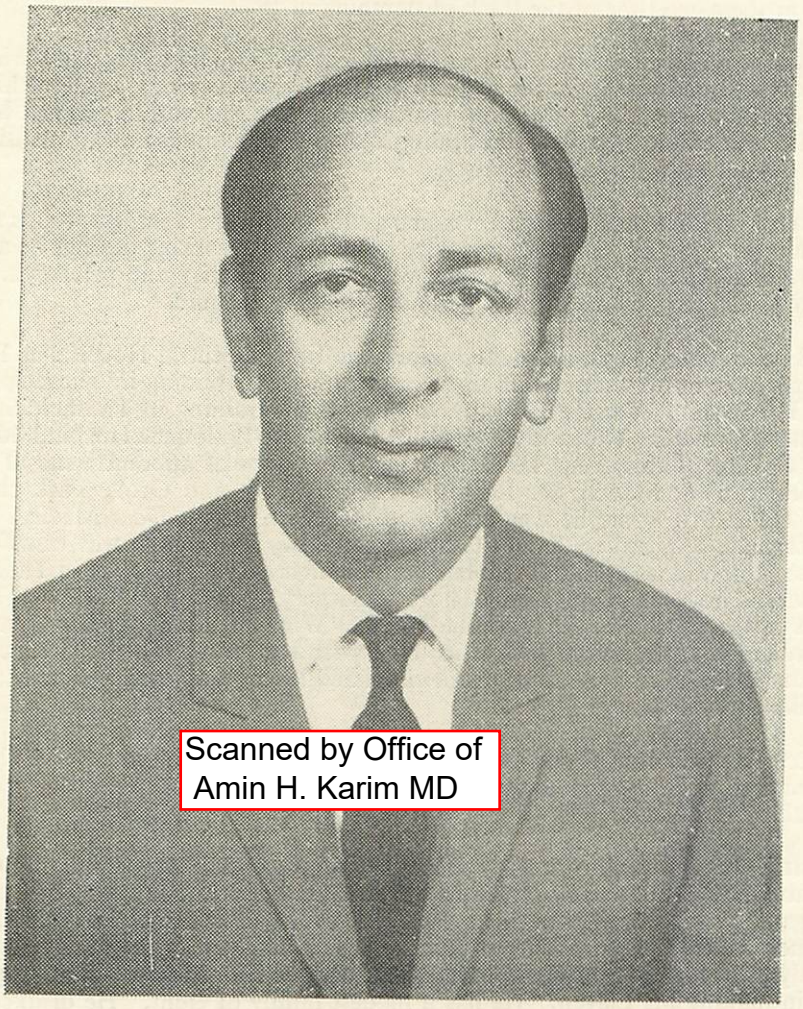
His special interest is in Oesophageal Surgery and Surgical Treatment of Asthma. Under the new administration he hopes to develop Cardiac Surgery which he has not been able to do so far, due to lack of facilities.

Surgeon Shirazi is an all rounder. He had his share of Military training in O.T.C. is not shy of sports and though not a front ranker he was in the college team in volley ball and hockey—his favourite games. As a teacher he has a nack of stressing basic principles and adopting a very informal attitude which makes one feel at home in his clinics. He loves poetry, enjoys qawwali and vehemently protests against Family Planning, in fact he is quite sore about his partner's non co-operation in making his Eleven. He has a modest family of eight. He dislikes cricket and thinks it is only good for the lazy Lords and their Govt. He feels that youth should have something that can build stamina.

In short Surgeon Shirazi is a pleasant character but does he also get angry! His latest acquisition is that he is now a Haji.

Chairman

Photography, Arts & Crafts Society



Dr. NUSRAT ALI SHAIKH
M.B.,B. S.; F. R. C. P.

Director, Skin & Social Hygiene Centre.

BORN in Simla-India in the year. 1925, Did his early education from Simla and New Delhi and after Passing his matric went over to Lahore and joined F.C. College for his intermediate studies.

Graduated from K. E. Medical College in the year 1947 and subsequently having worked as a demonstrator in Physiology proceeded to U.K. for Post Graduation where he qualified M.R.C.P. with dermatology as his speciality. In 1969 was elected to the Fellowship of Royal College Edinburg.

Dr. Nusrat Shaikh had been an associat Physician and Asstt. Prof. of dermitology in J.P.M.C. in the Year 1957 and then subsequently with effect from December 1957 to date as director of skin and social hygeine centre. Within a short period he brought up the centre to a very high standard, where now, latest method and technique of investigation are used, X-Ray plant has been installed many important slides of cases have been made to facilitate the teaching of the subjects of the under graduate and post graduate medical students. General charts have been made in under to keep the record of the statistic of the disease of the country

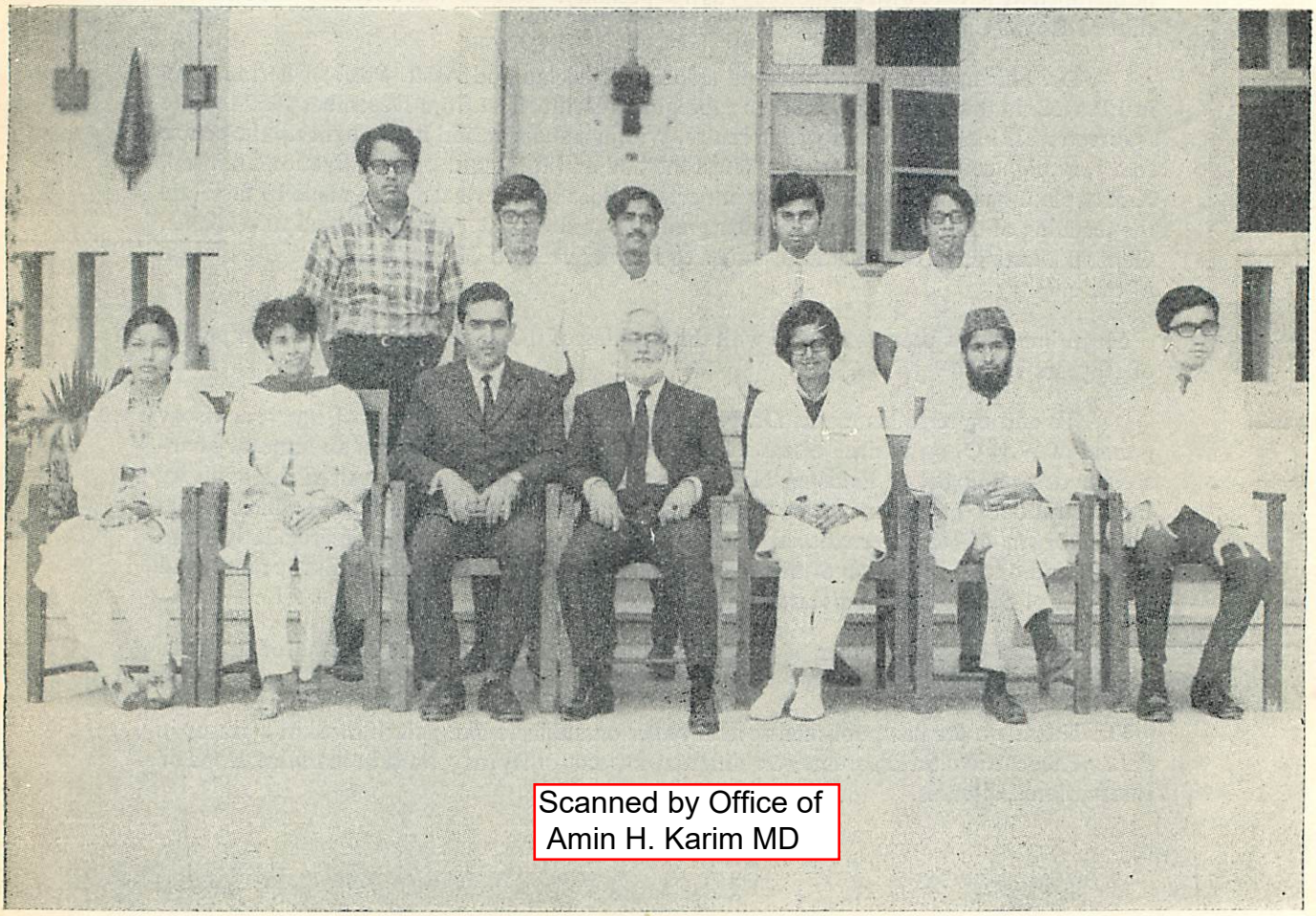
Meantime he has been associated with the teaching of the subject the D.M.C. far a period of 10 years 1960-70.

To add more to his merits Dr. Nusrat Shaikh has been a member of expert advisory pannel of W.H.O. on venirial diseases for the last 14 years and also been an honorary consultant dermatologist to Pakistan Navy since 1966. Has been a member of the advisory Editorial Board of the magazine "International Journal of Dermatology" which is the official organ of the International Society of Tropical Society, published regularly from U.S.A. and on the invitation of this society he has represented Pakistan to Europe and read his paper of patern of Skin diseases in Pakistan.

He has also been a member of the advisory Editorial Board of the Journal of the Pak. Medical Association.

Dr. Nusrat so far has published several paper on subjects like patern of Skin diseases in Pak. Paedeatric skin disorders, on different aspects of leprosy, on skin manifestations of International diseases.

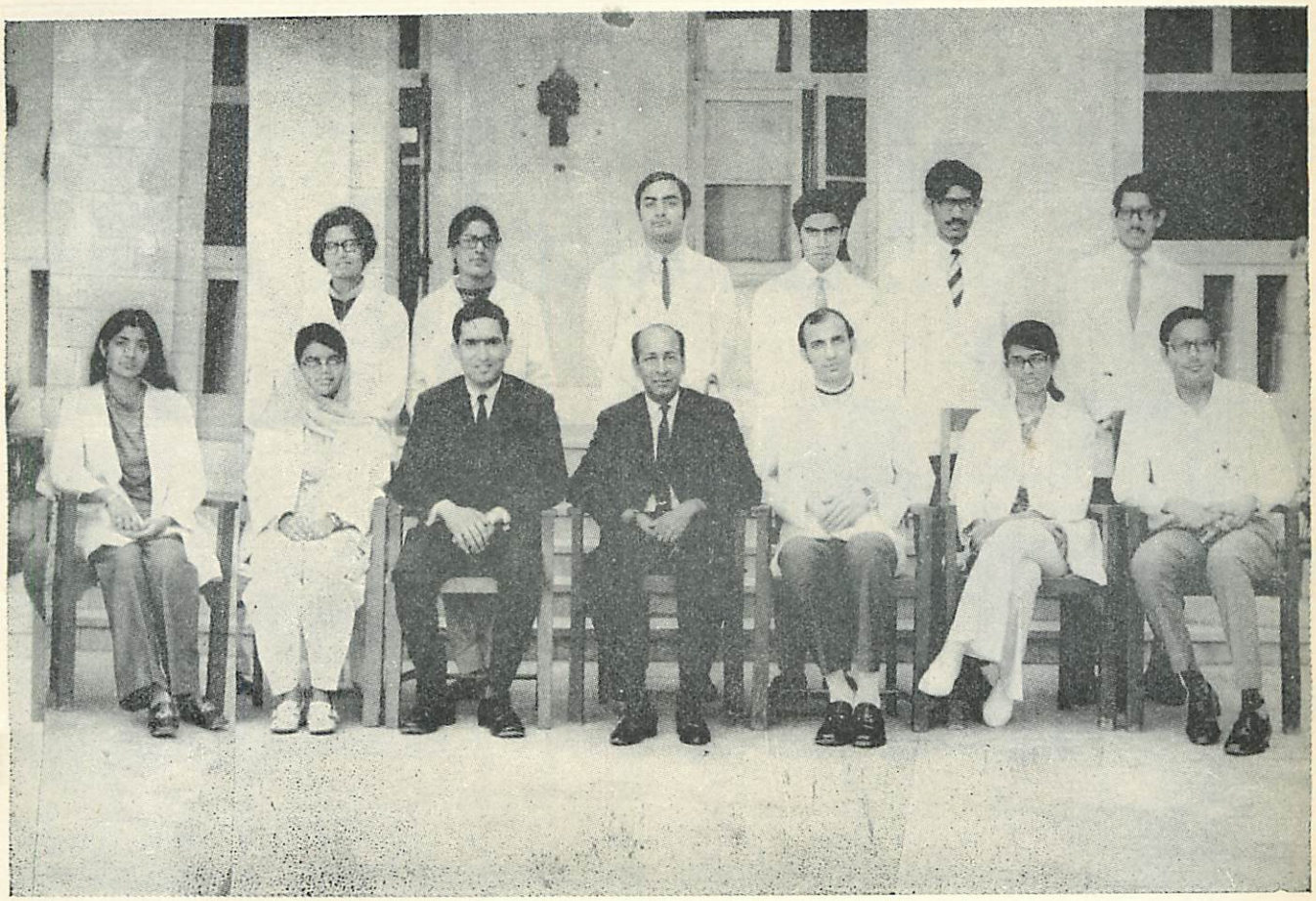
Writers Forum



Chairs L. to R:—*Atiya Sharif, Qamrunnisa, Hashem Shariat (President Surgeon M.A. Shirazi (Chairman), Fauzia, Abdul Hakeem, Zuhair.*

Standing L. to R.-*Fazle, Peshimam, Iqbal, Jawed, Tariq.*

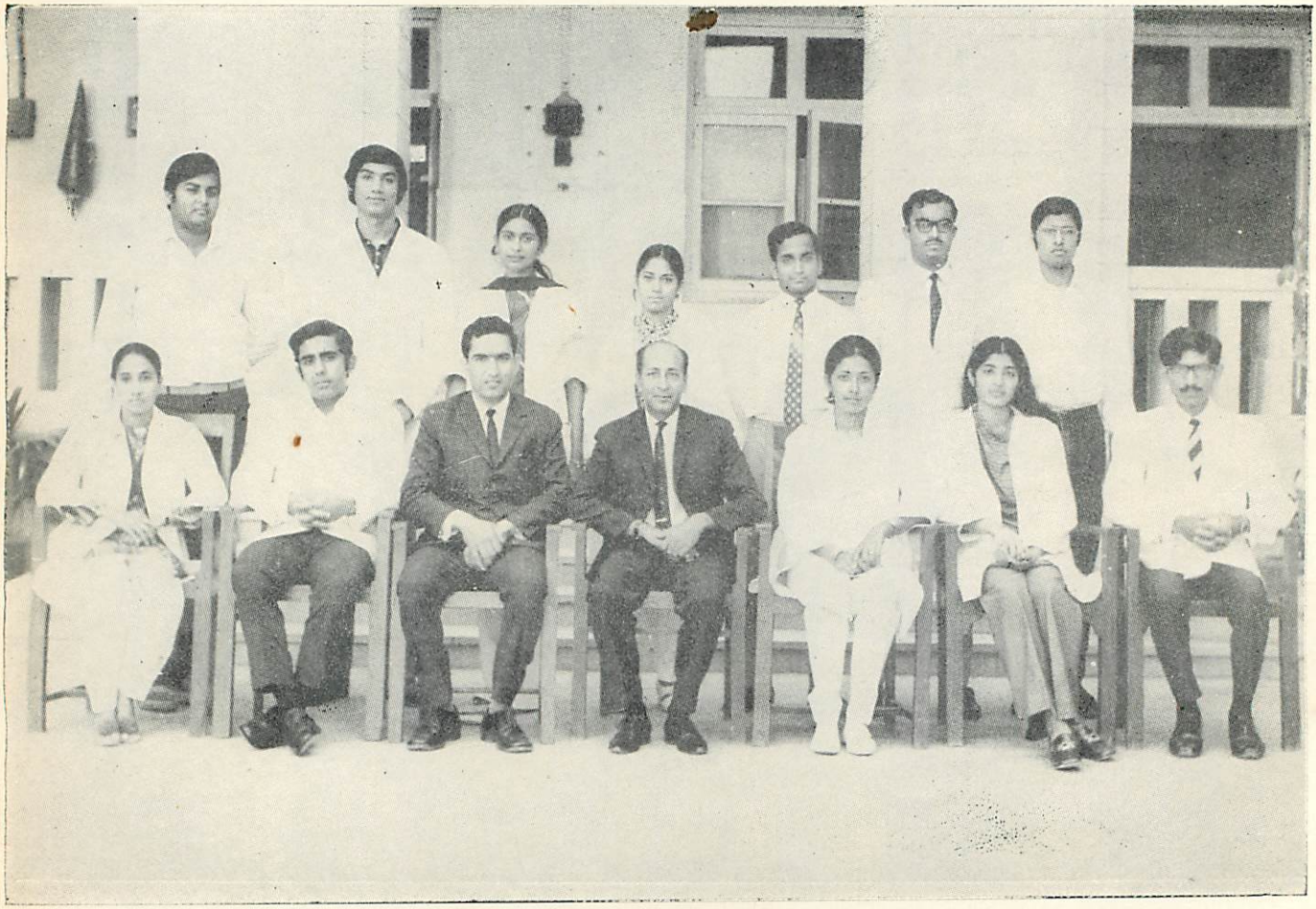
PHOTOGRAPHIC SOCIETY



Chairs L. to R.:—*Miss Shaesta Gilani* (*Sec.*) *Miss Ayesha Nasruullah*, *Hashem Shariat* (*President*,) *Dr. Nusrat Shaikh* (*Chairman*), *Nasser Jadalizadeh* (*Vice President*), *Asma Quraishi*, *Rizwan*.

Standing L. to R:—*Fauzia*, *Naseem*, *Iftikhar*, *Samad*, *Osman Baluch* (*Sec. Arts and Crafts*).

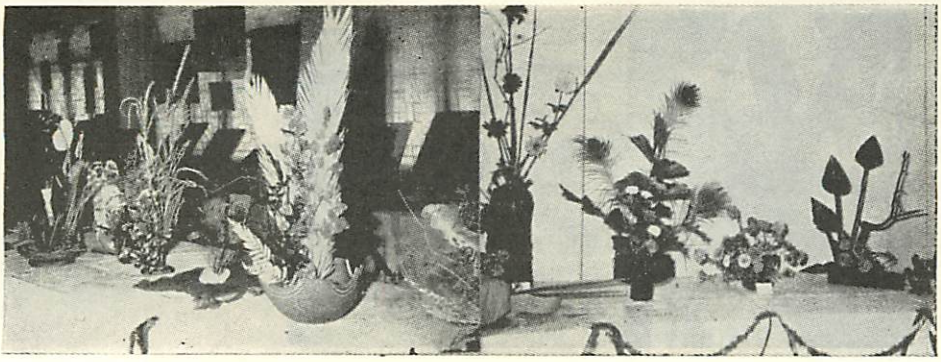
AR TS AND CRAFTS SOCIETY



Chairs. L. to R.:—*Miss Siraj, Ikram, Hashem Shariat (President), Dr. Nusrat Shaikh (Chairman) Miss Azra Hatimali (Vice President), Miss Shaesta Gilani(Sec. Photography), Usman Sadiq Baluch (Sec. Arts & Crafts).*

Miss Azra Hatimali, Vice President of the Arts & Crafts Society.

Mrs. Habib Patel and Mrs. Razzak Mohd as Judges for the Flower Show.



A Section of the Fresh & dry arrangement flower exhibition.

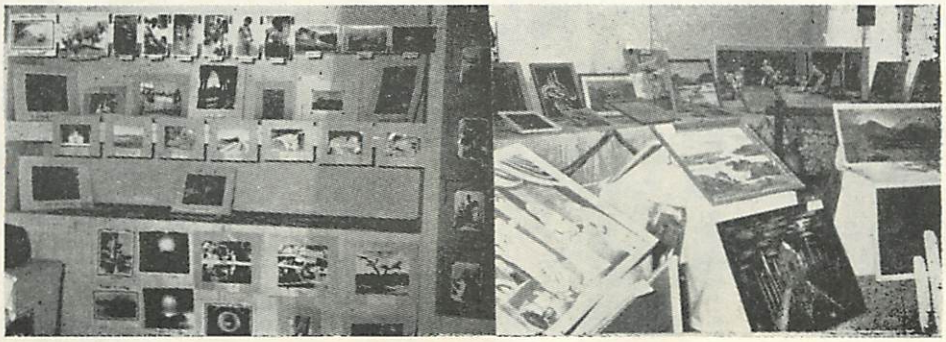
Mr. Usman Sadiq Baluch, Secretary of Arts and Crafts Society.

Dr. Shaukat and Mr. Rahi, looking for the best Craft.

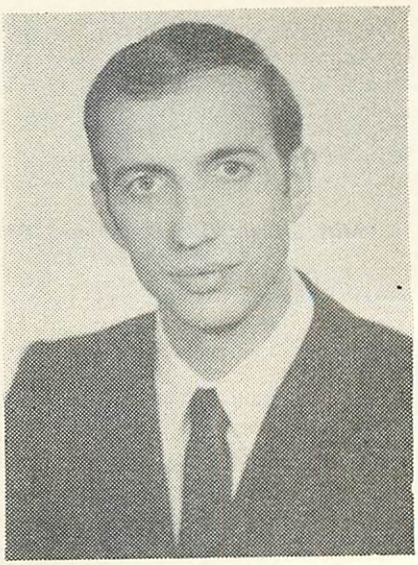
The decorated Hall.

Miss Shaesta Gilani, Secretary Photography Society.

Dr. Nusrat, Chairman of the Society, Judging for the best Photograph.



A Section of the Photography & Paintings of the Exhibition.



Mr. Nasser Jadalizadeh vice President of the Photography Society

Group photograph of the winners, with the Chief Guest. Prof. Fazal Elahi.

Scanned by Office of
Amin H. Karim MD

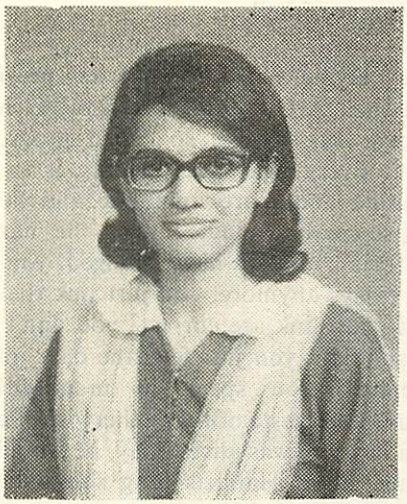
President of the Society, presenting the reports of the activities of the Society.

Arts and Crafts and the Doctor

By

ASMA S. QURESHI

IVth Year M. B., B. S.



THE stepmotherly treatment which is given to Arts and Crafts in professional colleges is lamentable but most understandably unavoidable. The artistic activities of the individuals in DM.C. are mostly restricted to the colourful drawings of anatomical figures—but once in a while their artistic capabilities are brought out, dusted and ocassionally a feeble attempt is made to remove the rust, and thus we see the outcome of their toils at the "Arts and Crafts Exhibition".

There is one artistic, I should say Craftic talent, which flourishes in D.M.C. and that is "Photography". The soaring prices of film rolls do not bother the industrious workers, who are always on the lookout to catch people unguarded, and in their most ridiculous pose. The Photographic Club collects members like flies but alas their wings cannot be clipped.

The portion which suffers the most is the Literary Forum; the English and Urdu literature suffers tortures at the hands of enthusiasts, whose vocabulary is limited to medical terms and whose stretch of imagination, unfortunately does not extend beyond the esteemed gates of D.M.C. and whose thinking powers have either been exhausted or fatigued but I would hate to say stunted!

Year after year the Editor has to plough through articles and poems at the end of which his condition is pitiable, and what to say of the readers, they leaf through the glossy pages, have to tickle themselves at the attempts at humour, and have to hang on to their concentration which restlessly wanders, or they pause to wonder at the literary powers of our future doctors. After the experience of reading the writers of D.M.C. straining at their pens they have serious doubts about Somerset Maugham, A. J. Cronin and Conan Doyle being doctors! The crowning glory regarding our writers is the complete dis-interest they show regards making any attempt to improve their work. It is not a question of, "He knows not, and knows that he knows not", but unfortunately the case here is. "He knows not & knows not that he knows not.

What of the proverbial doctor with his stock of jokes, his ready quotations, his philosophies of life, but now if a patient quotes something the doctor stares at him open mouthed, he has never heard of such a thing. The medical students today, when enter D.M.C. are exempted from reading

any thing which may enlarge the horizons of their literary intellect.

The "Dying Art" or what was previously called the "Art of self-expression" is having its grave dug by the so called progress of today. Every thing man invents, is to make him more and more immobile and he puts these suicidal products under the name of "comforts". Times have changed, you don't write essays anymore, you just tick the statements you think are correct! you don't think of a solution, you just feed the data into the computer! You speak in monosyllables because its a waste of time otherwise. Perhaps if Shakespeare was alive today, he would have cut out all of Hamlets long soliloquys and replaced them with grunts of "Uh-uh" or "Blast the king" etc. What with Romeo kneeling in Juliet's garden and vowing his everlasting love, today there would be no time for it, that is the cruz of the problem. There is no time nowadays for anything—the point is where has all the time gone? Have the days and nights shortened?

In D.M.C. the cause is genuine, but inspite of that the points put up as an excuse though being valid are not substantial enough. Medicine is unlimited, the vistas of knowledge are vast and the thirst for knowledge un-quenchable, but to better oneself, to refine the individual and create a balanced personality, too much of one thing and none of the other always has undesirable results. Though Shakespeare coming from the lips of a doctor is surprising but never unpleasant. An eloquent doctor is never unwanted, though not an over-eloquent one.

In the O.P.D's patients come with wooden faces and go out with the same; the doctor is like a machine, they feed in the data and the diagnosis comes out and they return as they came. The humens feeling is amiss, the individual to individual contact is absent The expression on the doctor's face would I think be as wooden, if a camel walked in to be examined, perhaps it would be in later hours that the doctor would reflect (if he got the time) upon the days happenings and say to himself. "That individual was certainly strange looking." It would never occur to him that "That individual was a Camel!"

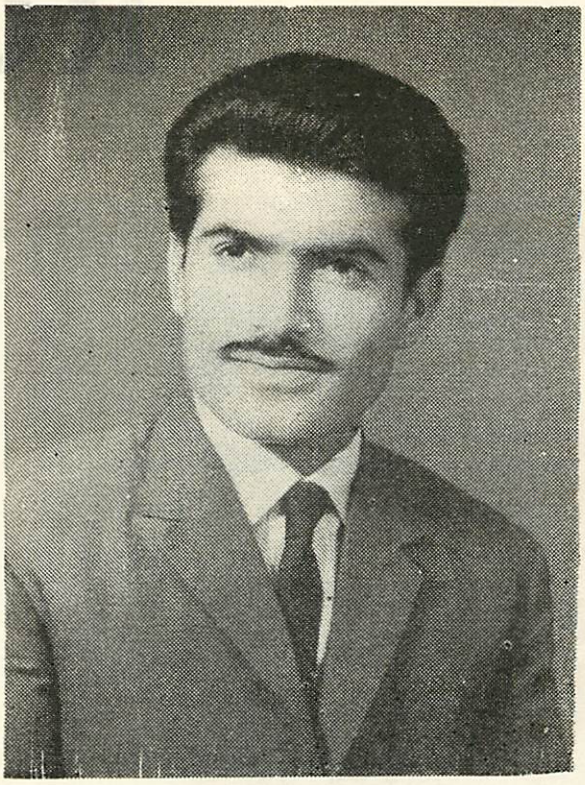
Answers to Spot Diagnosis

(from page No. 445)

1. Congenital shortened leg.
2. Meningocoel.
3. Necrotic sinus resulting from Quinine injection
4. Rickets.
5. Filarial Elephantiasis.
6. Carcinoma of Transverse Colon.
7. Congenital absence of the anus.
8. Carcinoma of breast.

Mr. Abdul Hayee Baluch

Final Year M.B.,B.S.



BORN in village chhalgari sub-district Bhag, District Kachhi, Baluchistan in the year 1945. Did his primary education in the same village and his secondary education from Government High School, Bhag. Stood III position in the whole province of Baluchistan. Inter Science from Government College Khuzdar. Mr. Hayee had the distinction of being the only Pre-medical student to pass from that college in the year 1964. In November 1964 admitted to Dow Medical College against the reserved seats of Quetta/ Kalat Division.

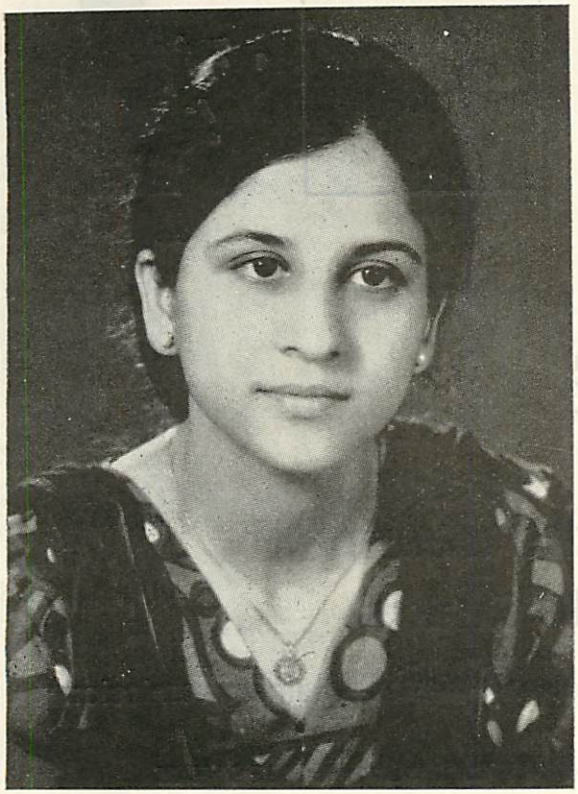
During his school days he had the honour of being the Head Boy of the school. During College life he was elected as a General Secretary of the College Union. During his Secretaryship he called for a general students strike which was fruitful. In Dow Medical College in 1967 he organized an All Pakistan Baluch students convention in Karachi, and formed the Boluch students organization in All Pakistan basis and was made the founder Chairman of the organization. At present he is the Secretary General of Pakistan Federal Union of students and President of Baluch students organization. Last but not the least a proud member of the National Assembly from the Baluchistan Province.

ROLL OF

Dr. NASEEM BANO
Final Year M.B.,B.S,

Mr. NASIR UDDIN KHOKHAR
III rd Year M.B.,B.S. (1969-70)

HONOURS



Miss. RABBIA SHAUKAT
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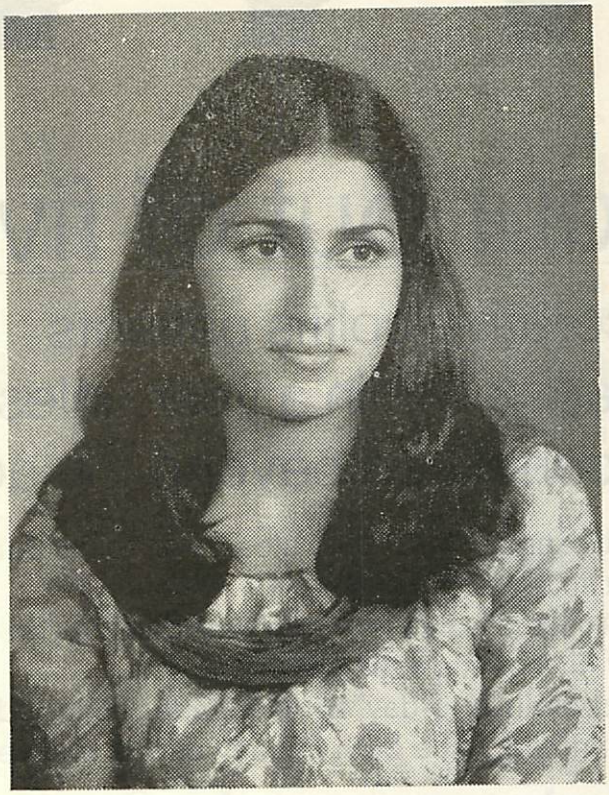

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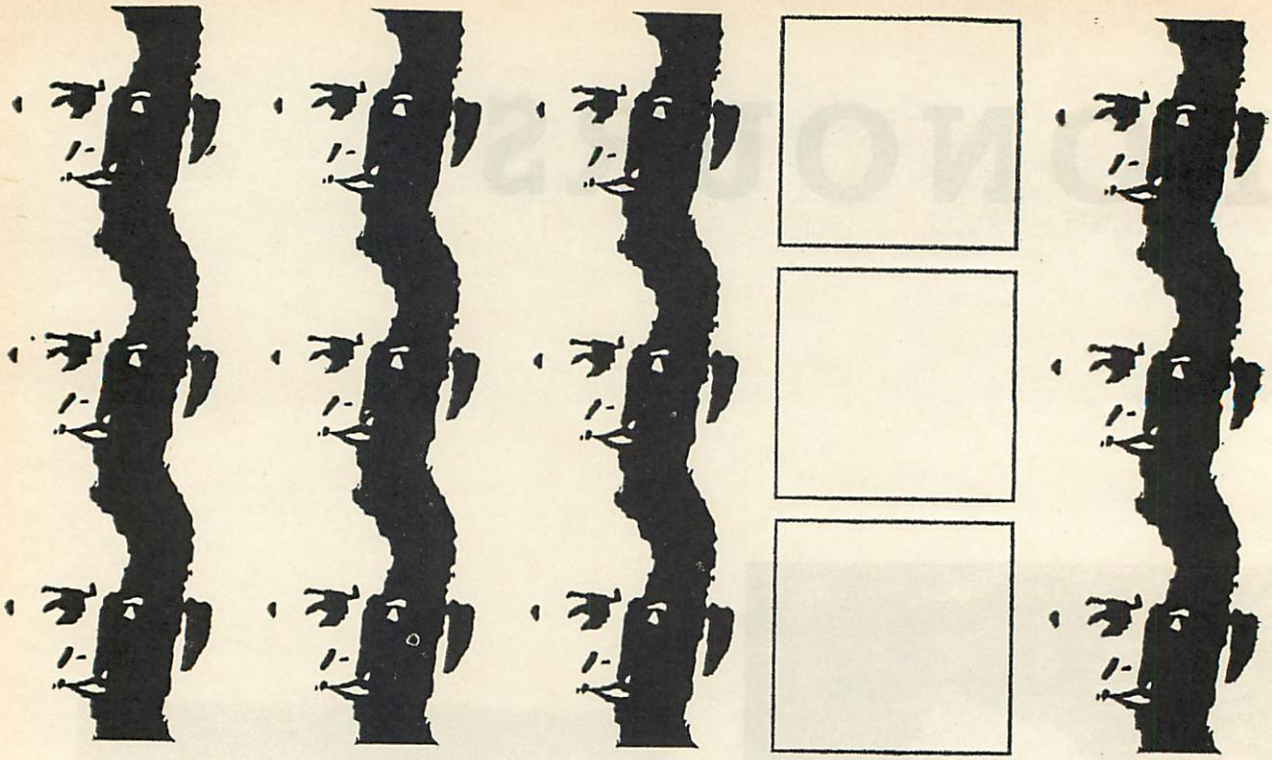
II nd Year M.B.,B.S.



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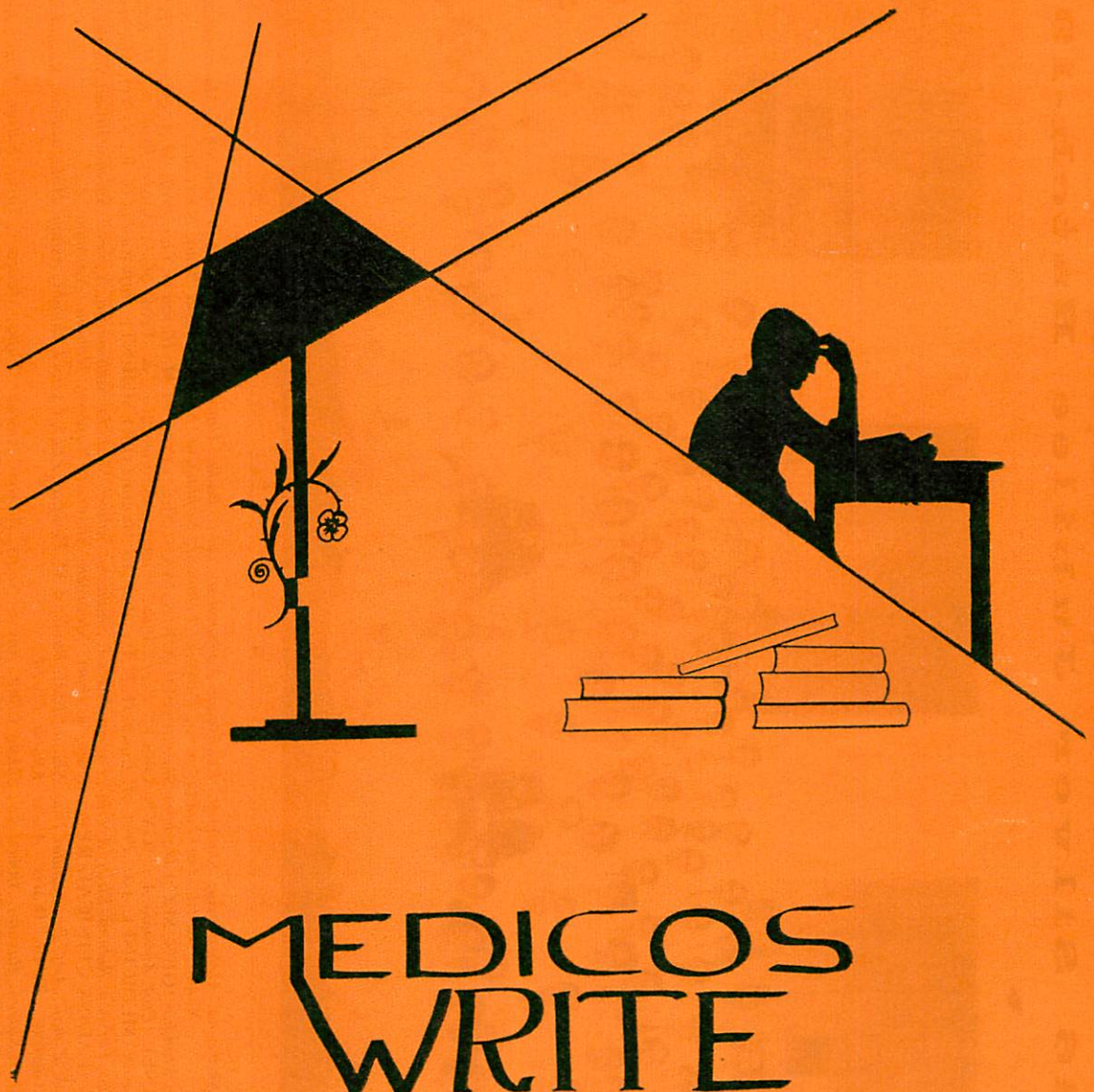

MEDICOS WRITE

Final Year M. B., B. S.

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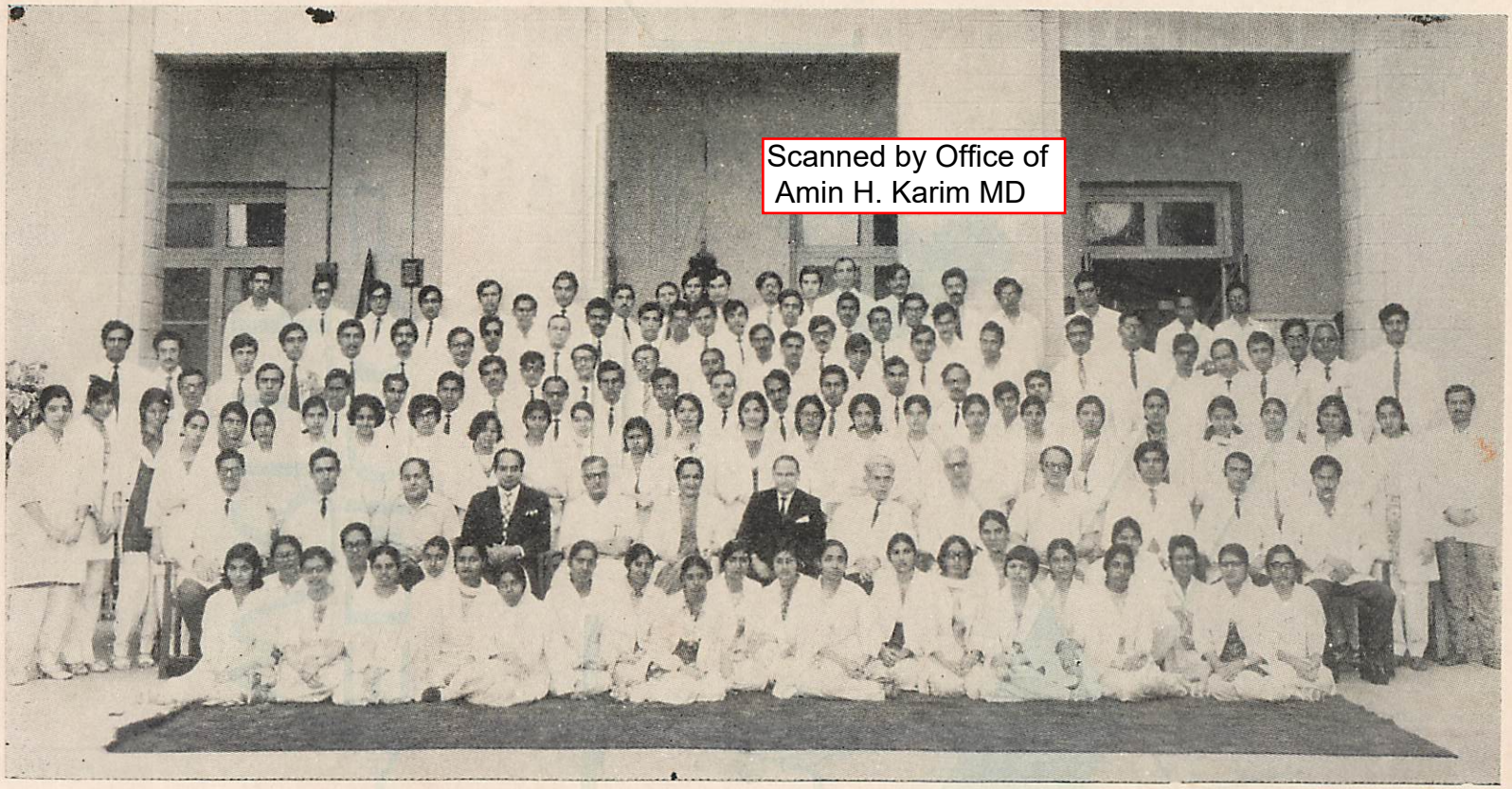

CARPET (*L to R*) *Shaheena, Mehrunnisa, Shaheen, Rukhsana, Zaibunnisa, Talat, Badar, Umaima, Naseem, Jehan Ara, Sofia, Mehrunnisa, Saeeda, Shaista, Najam, Nasrin, Farkhonda, Azra, Parveen, Fehmida, Najmunisa, Shireen, Safia Bano, Nasreen.*

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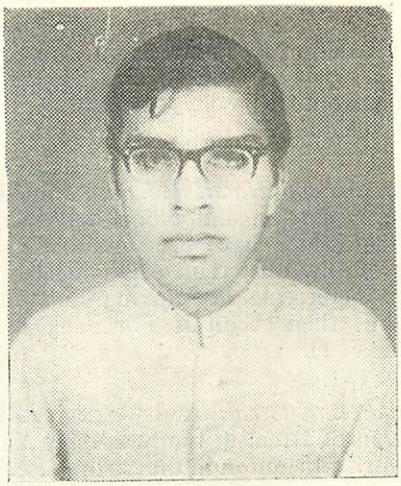
WHAT THE HOLY QURAN SAYS



INAMUL HAI

2nd Year M. B., B. S.

ISLAM means complete submission to God. It lays down in the Holy Quran certain tenets and injunctions according to which a Muslim (Momin) should act and live throughout his life. If Muslims obey the Commands of God and fulfil the obligations to Him and to their fellow beings they will be rewarded amply, if not they will be severely punished by Allah in this world and in the hereafter.

Below are some of the excerpts, concerning various subjects, from the English Translation of the Holy Quran by Mohammad Marmaduke Pickthall. These are reproduced with the fervent hope that the readers of this Magazine will derive benefit from them.

Importance of Quran: This is the Scripture whereof there is no doubt, a guidance unto those who ward off (evil). (*Surah II*).

And when the Quran is recited, give ear to it and pay heed, that you may obtain mercy. (*Surah VIII*).

And when thou recitest the Quran, we place between thee and those who believe not in the hereafter a hidden barrier. *Surah XVII*).

Obedience to God: Successful indeed are the believers. These are the heirs who will inherit Paradise. There they will abide. (*Surah XXIII*).

And those who believe in the revealations of their Lord, these race for the good things, and they shall win them (disbelievers) in the race. (*Surah XXIII*).

Lo! I have rewarded them this day for as much as they were steadfast; and they verily are the triumphant. (*Surah XXIV*).

Disobedience to God: As for the disbelievers, whether thou warn them or thou warn them not it is all one for them; they believe not. Allah hath sealed their hearing and their hearts, and on their eyes there is a covering. Theirs will be an awful doom. (*Surah II*)l.

And the Jews say: Ezra is the son of Allah, [illegible]ans say: The Messiah is the [illegible]hat is their saying with their [illegible]imitate the saying of those who disbelieved of old. Allah fighteth against them. How perverse are they! *Surah IX*).

Mercy: Save him on whom they Lord hath mercy: and for that He did create them. (*Surah XI*).

Fasting: The month of Ramadan in which was revealed the Quran, a guidance for mankind, and the criterion of right and wrong. And whoseever of you is present, let him fast the month, and who so ever is sick or on a journey, let him fast the same number of other days. (*Surah II*).

Promise to God: Fulfill the covenant of Allah when ye have covenated, and break not your oaths after the asseveration of them, and after ye have made Allah surety over you. Lo! Allah knoweth what ye do. (*Surah XVI*).

Thankfulness to Go: And when your Lord proclaimed: If ye give thanks, I will give you more; but if ye are thankless, lo? my punishment is dire (*Surah XIV*).

Weights and Measures: Fill the measure when ye measure, and weigh with the right balance; that is meet, and better in the end. (*Surah XVII*).

Expenditure: And let not thy hand be chained to thy neck nor open it with a complete opening lest thou sit down rebuked, denuded. (*Surah XVII*).

Orphans: Give unto orphans their wealth. Exchange not the good for the bad nor absorb their wealth into their wealth. Lo! that would be a great sin. Lo! Those who devour the wealth of the orpahns wrongfully, they do but swallow fire into their bellies, and they will be exposed to burning flame. (*Surah IV*).

Pride: And walk not in the earth exultant. Lo! thou canst not rend the earth, nor canst thou stretch to the height of the hills (*Surah XVIII*).

Turning away in pride to beguile men from the way of Allah. For him in this world is ignominy, and on the day of Resurrection, We make him taste the doom of burning. (*Surah XXII*).

Aggression and War: Fight in the way of Allah against those who fight against you, but begin not hostilities. Lo! Allah loveth not aggressors. (*Surah II*).

Those of them with whom thou madest a treaty, and then at every opportunity they break their treaty, and they keep not duty to Allah, if thou comest on them in the war, deal with them so as to strike fear in those who are behind them, that haply they may remember. (*Surah VIII*).

And call not those who are slain the way of Allah "dead". Nay, they are living, only ye perceive not. (*Surah II*).

Revenge: In truth they lord destroyed not the townships tyrannously while their folk were doing right. And Lo! unto each thy Lord will verily repay his works in full. (*Surah XI*).

Wickedness: Deem not that Allah is unware of what the wicked do. He but giveth them a respite till a day when eyes will stare in terror. (*Surah XIV*).

Haraam and Halal: He hath fobidden for you only carrion and blood and swine-flesh and that which hath been immolated in the name of any other than Allah; but he who is driven thereto, neither craving nor transgressing, Lo! then Allah is Forgiving Merciful, (*Surah XVI*).

Children of Isreal: And we decreed for the Children of Israel in the Scripture: Ye varily will work corruption in the earth twice, and ye will become great tyrants. (*Surah XVII*).

And unto those who are Jews, We have fobidden that which we have already related unto thee. And we wronged them not, but they were wont to wrong themselves. (*Surah XVI*).

Burden of children: Slay not your children, fearing a fall to poverty, we shall provide for them and for you. Lo! the slaying of them is great sin. (*Surah XVII*).

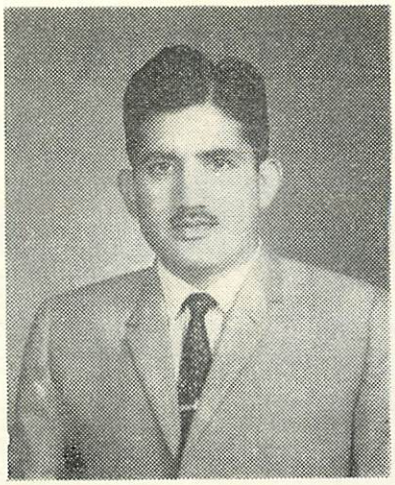
Repentence: Triumphant are those who turn repentent to Allah, those who serve Him those who praise Him, those who fast, those who bow down, those who fall prosprate in worship, those who enjoin the right and forbid the wrong and those who keep the limits (ordained) of Allah—and give glad tiding to believers. (*Surah IX*).

"The Holy Guran - a Natural Miracle"

(For the students of Science and Medicine)

By

DR. MUZAFFAR IQBAL CHUGTAI



FEW verses from the Surah Yasin (*the Heart of Quran*) as they concern the central figure in the teaching of Islam and the Central doctrine of Revelation and the here-after.

Rakoo or Section (3) *and Verses from* 33-35.

No. 33:—A token unto them (*or sign for the human being*) is the dead earth. We (God) revive it and We bring forth from it grains so that they eat thereof.

No. 34: And We (God) have placed there in gardens of date palm and grapes, and we have springs of water to gush forth therein, that they may eat of the fruits there-of, and their hands made it not. Will they not, then, give thanks?

No. 35:- Glory be to Him (God). who created *all the sex pairs*, of that the earth groweth, and of themselves (Human) and of that which they know not!

***Commentary:-** The mystery of sex runs through all the creations, in man, in animal life, in vegtable kingdom (as our Botonists had proved a few decades age), and possibly in other things of which we have no knowledge.

Then there are pairs of opposite forces in nature, e.g., positive and negative electricity.

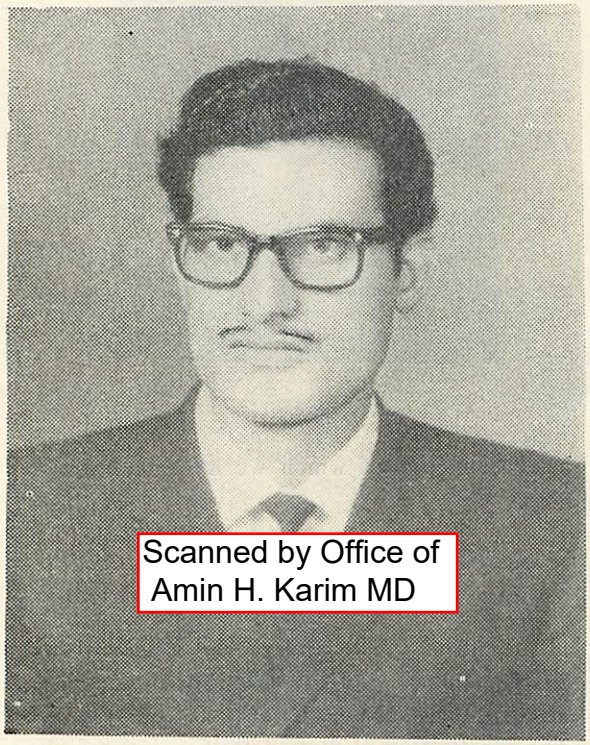
The atom itself consists of a positively charged nucleus or proton, surrounded by negatively charged electrions.
The constitution of matter itself is thus referred to pairs of opposite energies.

Fellow students! Will you think over the above which are told by Ummi Prophet (Ummi:- means who was not educated by any human being but by God directly), about fourteen hundred years ago, which have been discovered now by scientists a few decades ago after the discovery of high-power microscopes etc.

Really the Holy Quran is a living, everlasting miracle of our Prophet Mohammad (*May peace and blessings of allah be upon him*).

This is the Book,
In it is guidance,
Sure, without doubt,
To those who fear God.

MANAGEMENT OF ASTHMA



By

NASIR UDDIN KHOKHAR

Final Year M. B., B. S.,

MORTALITY from asthma in recent years has been reported to be much increased, particularly in countries like England (Donald and Flenley, 1970; Heaf, 1970) and United States (Speizer et al., 1968 a;Hagy and Settipane, 1969). This has been attributed to increased use of corticosteroids and of pressurised areosols containing sympathomimetic drugs (Speizer et al., 1968 a). This increase did not occur until about a decade after the introduction of corticosteroids for asthma and therefore it seems unlikely for these to be responsible for the deaths (Speizer et al., 1968 b). Excessive amounts of adrenergic aerosols like Isoprenaline, by stimulating adrenergic receptors in the myocardium, particularly when it has been sensitised by the effect of hypoxia and vasoconstriction, may lead to fatal arrhy thmias (Tai and Read, 1967; Tudhope, 1969). It has been pointed out by Inman and Adelsten (1969) that the death rate from asthma has fallen down following recent fall in sale of aerosols after the suspician had arisen about their harmful effects. Read (1968), however, suggests that the rise in mortality may be due to change in the natural history of the disease.

The management of asthma in such circumstances presents a challenge for the clinician. This may be described as (a) management of an acute attack of asthma including what is known as Status asthmaticus and (b) management of Chronic asthma.

MANAGEMENT OF ACUTE ATTACK

The patient should be put in bed and allowed to lie in a position giving him maximal comfort. Oxygen inhalation may be started if the patient is in obvious distress or has cyanosis. The hyposia in asthma has been recently appreciated and emphasis has been laid down on determination of blood gas tensions before and during Oxygen therapy. Oxygen should be humidified as dry air has marked ability to dry up the respiratory secretions. The concentration of gas should be regulated properly as 100% Oxygen has been found to alter the histology of alveolar cells, to impair ciliary action, irritate bronchial mucosa and damage pulmonary capillaries (Harris and Riley, 1967).

Sympathomimetic drugs are valuable for aborting mild to severe attacks. While using bronchodilators, an effective dose should be given and patient may be taught to administer the drug to himself at the onset of attack (Davies, 1968).

Adrenaline :

.3-.5 ml. of 1:1000 solution should be injected subcutaneously and repeated if required. Dose upto 1 ml. may be tolerated. Fresh preparation, which is colourless, should be used and not repeated more than three times. For longer action, a preparation of adrenaline in oil may be given 6-12 hourly (Beaumont, 1966). Adrenaline as subcutaneous drip has been used where it is injected drop by drop after half to one minute interval from a 2 cc syring until bronchospasm is relieved or the pulse rate reaches 140 per minute.

Sympathomimetic drugs should be used with great caution in patients with hypertension, heart disease or hyperthyroidism (Sherman, 1967).

Isoprenaline :

This can be used either sublingually or by inhalation. 20 mg. tablets are placed under the tongue and allowed to dissolve. Aerosols containing isoprenaline are also available. These can lead to fatal arrhythmias (Tai and Read, 1967) It may also precipitate severe airway abstruction indistinguishable from a clinical attack of asthma (Keighley, 1966). Throbbing headache may also occur.

Newer bronchodilators, Orciprenaline and Salbutamol, seem to have similar relaxant effects on bronchial muscles without cardiac effects (Kelman et al., 1969).

Orciprenaline :

Orciprenaline has been found to have statistically highly significant difference of action on pulmonary function tests against placebo (Coleman & Howard, 1965). It has been shown to be superior to Isoprenaline (Pelz, 1967) and Isoetharine (Howard & Coleman, 1967) for giving prompt and prolonged relief of brochospasm. 5% Orciprenaline has proved an effective aerosol with fewer side effects than 1% Isoprenaline and has duration of action comparable to isoprenaline with Atropine methonitrate 0.2% (Havard, 1968a).

Salbutamol :

Salbutomol is a newer drug for asthma, evidence in whose favour is increasing day by day. The advantage of this over isoprenaline etc. is that it selectively stimulates beta 2 receptors in the bronchial muscle and has no effect on the receptors in the heart (Tattersfield & McNicol, 1970); Warrell et al., 1970; Palmer et al., 1970; Riding et al., 1970) and yet produces greatest increase in FEV1 and VC (Riding et al., 1970). Its duration of action is about 5-1/2 hours as compared to 1-1/2 hours of isoprenaline (Palmer et al., 1970). It is administered by inhalation and produces better effects than isoprenaline even when given orally (Kamburoff & Prime, 1970).

Salbutamol inhaler delivers 100 mcg. per inhalation and tablets containing 2 mg. as sulphate are also dispensed. No serious side effects as yet, have been reported.

Aminophylline :

Aminophylline is used in dose of 0.25-0.5 G in 10-20 ml. of 5% glucose or distilled water intravenously slowly at the rate of one cc per minute by the watch (Hasan, 1966) in cases who do not respond to drugs already described. When it is given rapidly it may cause tachycardia, arrhythmias, cardiac pain or convulusions. Injections may be repeated once or twice. Alternative method of administration is continuous introvenous infusion of 1000 cc dextrose 5% containing 40-80 units of ACTH and one gram of aminophyline. Drip is discontinued when the patient improves.

Aminophyllane is not suitable for oral use as it causes gastric irritation (Alstead et al., 1969). Choline theophyllinate in 200 mg. doses 3-4 times a day after meals may be used. "Entair" capsules contain a new theophylline combination and given as one capsule tid pc have been reported to be very effective and well tolerated (Goldthrope et al., 1964).

Aminophyline can be given per rectum as suppository or enema (Sherman, 1967; Ritchie, 1965). Absorption has been found (Younginger et al., 1966) to be regular when given as enema than as suppository.

Aminophylline relieves bronchospasm by acting directly on the smooth muscle of bronchi (Laurence, 1966). Atuk et al. (1967) have suggested that this may stimulate the adrenal medulla and possibly chromaffin tissue outside adrenal medulla as well to produce Catechol amines as shown by increase in urinary adrenaline and noradrenaline excretion and increase in plasma free fatty acid concentration.

Management of Status Asthmaticus :

Status asthmaticus should be regarded as an acute medical emergency and treated vigorously. The principles of management should be to abolish bronchospasm, to reduce mucosal oedema, to remove accumulated secretions, relieve anoxia, correct acidosis, combat infection and to relieve anxiety & fear (Qureshi, 1970a).

Corticosteroids :

Corticosteroids should be considered in cases who do not respond to adrenaline and

aminophylline. They are said to be better than any other treatment available (Jacoby, 1966). Treatment should be started with Prednisolone 15 mg. Six hourly on the first day. 10 mg. Six hourly on the second day 5 mg. Six hourly there after (Grant & Harris, 1968). If the patient is seriously ill, Hydrocortisone hemisuccinate 100-200 mg. may be given intravenously. Dosage should be decreased gradually (Carryer, 1965).

The exact mode of action of steroids is not known but it is thought that they exert an anti-inflammatory action on the bronchial mucosa and relieve aedema (Alstead et al., 1969).

Exceptorants :

Speizer et al. (1968b) found over distended lungs with plugged small bronchi in 91% of autopsy cases. It is therefore highly desirable to remove the secretions from respiratory passages.

In the absence of iodine sensitivity, Potassium iodine 0.6 G tid pc in a mixture is beneficial to liquefy tenacious sputum. Using 100-300 mg. daily it was possible to decrease steroid dosage but enlargement of thyroid occurred in 18 out of 52 patients and acne were aggravated in the adolescent (Fallier et al., 1966). Ammonium Chloride may also be used with benefit (Sherman, 1967). Intravenous glucose may be given to remove dehydration and moisten secretions. Bronchial lavage with normal saline by bronchoscopic suction under general anaesthesia may have to be undertaken to remove tenacious and inspissated sputum (Sherman, 1967).

A newer drug, acetylcysteine (mucomyst), has been found to have great mucolytic property and has proved of significant value in removing tenacious sputum from respiratory tract in asthma and certain other conditions (Hurst et al., 1967). It is given by inhaltion and exerts direct irritative effect on bronchiolar musculature. Patients may exhibit an unusual reactivity to sulphydryl group in it and may develop wheezing after inhalation (Bernstein & Ausdenmoore, 1964).

Sedatives :

Sedatives should be given to allay anxiety and relieve restlessness but strong narcotics like morphine or pethidine are contraindicated as they depress respiratory and cough centres, release histamine and drpy up secretions (Jaffe, 1965). Paraldehyde is a safer drug (Nicholson, 1966; Qureshi, 1970a) which can be given per rectum or by injection (5-10 ml.). Chlorpromazine 25-50 mg. intravenously promotes relaxation and sleep (Grant & Harris, 1968).

Phenobarbitone or amytal in moderate doses can be given (Beaumont, 1966). If strong sedation is required, 60 ml. ether in 120 ml. of oil may be given per rectum (Sherman, 1967).

Antibiotics :

Infection of the respiratory tract, which is usually present, impairs the effect of steroids and adds to their hazards (Havard, 1968b), should be combated with suitable antibiotics. Ampicillin or tetracyclin in dosage of 250 mg. six hourly are useful for this purpose. Culture and sensitivity of the organism should be ordered lest antibiotics other than these be indicated.

Anoxia and Acidosis :

Oxygen inhalation should be started if the PaCo2 is above 50 mm Hg. Intermittent positive pressure respiration may be used which decreases energy expenditure, improves aerosol distribution, assists in removing secretions and helps in removing fear (Busey et al., 1968). Acidosis should be dorrected by an appropriate dose of sodium bicarbonate intravenously.

A great majority of patients are relieved when treated on these lines. Those who do not respond, general anaesthesia with ether or halothane in oxygen usually terminates status asthmaticus (Qureshi, 1970a).

Management of Chronic Asthma :

In patients with chronic asthma, an attempt should be made to discover the underlying cause which may be allergy, infection or psychological factors. A plan should be made to desensitize the patient, control infection, give psychiatric support, administer long-acting bronchodilators and general measures to make the patient symptom free. Long term corticosteroids should be considered at the end.

Allergy :

Cases of asthma has been found to increase after the plant polinating season (Booth et al., 1965). Desensitization may be carried by 50 subcutaneious injections of increasing doses of pollen extract each given at 3-4 days interval, starting about 3-6 months before the pollinating season, with 60-80% success (Heaf, 1966). Depot desensitization has been tried with considerable success but local and sys-systemic reactions often occur (Smedland et al., 1964).

Evidence is accumulating (Altounyan, 1967; Howell and Altounyan, 1967 Kennedy, 1967; Smith and Devey, 1968; Assem & Mongar, 1970; Sheard & Blair, 1970) in favour of a newer drug, Disodium Cromoglycate. Though certain workers have given less favourable results (Grant et al., 1967; Kidner et al., 1968), yet it has been called a major advance in management of allergic asthma (Howell and Altounyan, 1967). It is related to Khellin (Qureshi, 1970b) but is not a bronchodilator (Bignall, 1969) and acts by stabilising the cell membrane (Kerr et al., 1970) and inhibits the release of so called spasmogens from the sensitized cells. These mediator substances are histamine, bradykinin, 5 OH tryptamine and SRS-A. It inhibits the expected histamine induced fall in PEV and VC when given before histamine (Kerr et al., 1970) and hence is useful only in praphylaxis of asthma. It is used by in-halation through a plastic inhaler called spinhaler is dosage of 20 mg. in gelatin capsules with some isoprenaline to prevent any transient spasm due to powder irritation (Tudhope, 1969). No teratogenic effect has been found in rats and rabbits in moderate dosage (Schineden, 1969).

Antihistamines are in effective in asthma as other autacoids are also produced (Douglas, 1965).

Infections :

The presence of infection prevents proper absorption of aerosols (Heaf, 1966) and hence it should be controlled with suitable chemotherapy. Macrolide antibiotics like Triacetyl-oleandomycin and Erythromycin have been reported to increase FEV, and reduce steroid dosage in absence of any infection and their effect seems related to steroid metalbolism (Itkin and Menzel, 1960).

Emotional Factors :

In 41% of cases, psychological factors have been considered to be dominant (Rees, 1964) but no specific personality type has been recognized (Rees, 1964; Herbert, 1965). However, methods of relaxation are beneficial in chronic asthmatics and teaching them to breathe slowly and with minimum effort is helpful (Heaf, 1966). Controlled trials with regular hypnosis have proved effective (Maher-Loughnan et al., 1962) and behaviour therapy has been tried (Cooper, 1964). In severe emotional disturbances, phenobarbitone 30-70 mg. tid may be prescribed (Grant & Hearris, 1968) as in many patients an element of anxiety and fear may precipitate and maintain as asthmatic attack (Nicholson, 1966).

Bronchodilators :

Bronchodilators like ephedrine with longer duration of action may be prescribed in dosage of 30-60 mg. tid pc. Choline theophyllinate 200 mg. tid is also useful. Ephedrine and theophylline combined give slightly higher therapeutic effects (Taylor et al., 1965).

Expectorants :

Expectorants should be given to liquefy tenacious sputum and keep the respiratory tract clear, as excessive secretions prevent adequate absorption of drugs given as aerosols (Heaf, 1966), and increase patients distress.

General Measures :

The patient should be advised to have regular hours of rest and sleep and keep with normal activities of life. Dust and blankets etc. should be avoided and smoking given up. Heavy meals at night should not be taken, as they may precipitate an attack. Change of occupation or house may be considered if indicated.

Corticosteroids :

Livingstone and Davies (1961), reviewing results of long term use of corticosteroids in 71 patients, pointed out that the death rate from asthma had declined since their use for treatment of asthma. Good results were reported later (Somner et al., 1960; Pearson

et al., 1961; Rees and Willimas, 1962). Prednisone 10-15 mg. daily was capable of suppressing chronic asthma in a large number of patients and other analogues like Triamcinoline, Betamethasone, Dexamethasone and Methyl prednisolone had very little advantage over it (Heaf, 1966). The use of steroids has been reported to have increased to double in the past 8 years (Bookman and Katz, 1966). and it has been recommended they should not be used when more conservative methods effectively control asthma and if given, short courses should be used and gradually discontinued (Carryer, 1965) although the weaning process may be difficult in patients over the age of 30 (Knowles, 1961). Anabolic substance 'Stanozolol" given 6 mg. daily has been reported to decrease steroid requirements (Falliers, 1965).

Intermittant steroid therapy in selected cases may prove as effective as continuous one (Walsh & Grant, 1966) and prednisolone 5 mg. six hourly may be given on three consecutive days of the week with good results and lesser side effects (Grant & Harris, 1968).

Hydrocortisone and other steroids have been used as aerosols (Cotes, 1956). Dexamethasone aerosol seems to have more favourable results and it may be possible to decrease oral steroid dosage (Arbesman et al., 1963; Kravis & Lecks, 1966). These aerosols act topically on bronchopulmonary Tissue and cause less complications than with oral steroids with less adrenocortical suppression (Kravis & Lecks, 1966).

Risks of Corticosteroids

Corticosteroid drugs given for prolonged periods are liable to cause certain undesirable effects which depend on the dosage and duration of the treatment. Gain in weight is componest (Phear et al., 1960). Fat distribution of cushingoid type, acne and hirsuties, striae, amenorrhoea and increased tendency towards bruishing occur usually (Baylis, 1966; Havard, 1968b). Peptic ulceration with haemorrhage and perforation is common (Glenn & Grafe, 1967). Infection is considered to be responsible for a quarter of deaths attributable to steroid therapy although exanthemata like varicella in children receiving corticosteroids have been reported to be uneventful (Falliers and Ellis, 1965; Falliers et al., 1964) More seriously, Diabetes mellitus, hypertension, myopathy, mental disturbances, Osteoporosis with vertebral collapse and adrenal suppression may occur (Havard, 1968b). Arthropathy of hip joint and fat embolism may occur (Eberlein et al., 1967) and intracranial hypertension, hypothermia, posterior cataract and pancreatitis are unusual rare complications (Havard, 1968b).

In 34 pregnant women recieving prednisolone, there were 18 in which the foetus has been reported to be either still born or had shown evidence of being at considerable risk (Warrel & Taylor, 1968). Growth in children has been reported to remain unimpaired with dosage of prednisone or prednisoline less than 3 mg. per sq. m. (kerrebijin & Dekroon, 1968).

Keeping all these complications in view it is highly desirable that steroids should be used with great caution in patients having any condition described above and should be used only when these are really indicated. When on these drugs, the following rules should be observed; (Havard, 1968b).

1. Every effort should be made to reduce the dose, but this should be done gradually.
2. The patient should be made to realize that it is dangerous to stop the treatmen suddenly, any illness, infection or injury require increase in dose and that he should carry a card with him indicating the dose, preparation and length of time he is using steroids.
3. Urine should be tested for sugar and blood pressure reading taken at intervals.
4. A chest radiograph should be taken before starting the treatment and at six month intervals.
5. Any intercurrent infection should be treated vigorously.

BREATHING EXCERCISES.

During an attack the patient should be advised to breathe slowly and calmly to allow time for prolong expiration and thus preventing trapping offf air, over inflation and emphysema.

In chronic asthma, breathing exercises may help in preventing postural deformities, particularly in children.

Miscellaneous :

Chloroquine (Tannenbaum & Smith, 1966), Amitriptyline (Sugihara et al., 1965), Diethylcarbamazine (Mallen, 1965) and chorinoic gonadotrophin (Grimaldi, 1967) have been used with some success in asthma but all have doubtful position. 6-Mercaptopurine (Arkins & Hirsch, 1966) and Gamma globulins (Crepea et al. 1966) have been tried without benefit. Guanithedine has been used to potentiate the effect of adrenaline (Megahad & Fahmy, 1966).

Summary :

This article is an attempt to review very briefly the available facts about drugs and other measures presently available in the armamentarim against asthma.

Acknowledgement :

Prof. Mushtaq Hasan M.D., F. R. C. .. Dow Medical College, Karachi has been very kind during preparation of this paper. His kind encouragement and valuable advice is thankfully acknowledged.

References :

Alstead S et al: (1969) Clinical Pharmacology Pp. 362-368 Bailliere, Tindall & Cassell, London.

Altounyan REC: Acta. Allerg. 22: 487, 1967 Quoted by Bignall. (1969).

Arbesman CE, et al: (1963) J. Allergy 34:354 Quoted by Heaf (1966).

Arkins JA, Hirsch SR: (1966) *Ibid.*, 37:90-95.

Assem ESK, Mongar JL: (1970) International Arch. Allergy and Applied Immunology 38:68-77.

Atuk NO et al: (1967) Circulation 35-745-753.

Atuk NO et al; (1967) Circulation 35:745:753.

Bayliss RIS: In "Price's textbook of the practice of Medicine" Pp. 438-439 Oxf. Uni. Press, London, 1966.

Beaumont GE: In "Price's textbook of the practice of Medicine" Pp. 774-777 Oxf. Uni. Press, London 1966.

Bernstein IL, Ausdenmoore RW: (1964) Dis. Chest 46:469-473.

Bignall JR: In "Medical Annual" Pp. 418-421 Wright & Sons, Bristol (1969).

Bookman R, Katz EE: (1966) Ann. Allergy 24:581-585.

Booth S et al: (1965) Arch. Environ. Health 10:152-155.

Busey JF et al: (1968) Am. Rev. Resp. Dis. 97:735-736.

Carryer HM: (1965) J.A.M.A. 194:1122-1124.

Coleman ME, Howard LA: (1965) Ann. Allergy 23:434-436.

Cooper AJ: (1964) Behav. Res. Therapy 1:351 (in Medical Annual, 1969).

Cotes P et al: (1956) Lancet 2:807 quoted by Head (1956).

Crepea S et al: (1966) Ann. Allergy 24:162-170

Davies PDE: In "Fundamentals of current medical treatment " Pp. 619-622 Staples Press, London, 1968.

Donald KW, Flenley DC: (1970) Practitioner 205:420.

Douglas WW: In "Goodman and Gilman Pharmacological basis of therapeutics" P. 636 Macmillan, New York, 1965.

Eberlein WR et al: (1967) Paediatrics 40:279-282.

Falliers CJ: (1965) Clin. Paediat. 4:441-446.

Falliers CH, Ellis EF: (1965) Arch. Dis. Childh. 40:593-599.

Falliers CJ et al: (1964) South. Med. Jour. 58:1054-1058.

Falliers CJ etal: (1966) J. Allergy 38:183-192.

Glenn F, Grafe WR: (1967) Ann. Surg. 165: 1023-1032.

Goldthorpe AM et al: (1964) Practictioner 193-789 Quoted by Hasan (1966).

Grant IWB, Harris EA: In "Principles and practice of Medicine "Pp. 340-346 Oivingstone, Londom 1968.

Grant IWB et al: (1967) Lancet 2:673 Quoted by Bignall (1969).

Hagy GW, Settipane GA: (1969) J. Allergy 44:323-332.

Harris RL, Riley HD: (1967) J. A. M. A. 210:953-955.

Hasan M: Common respiratory diseases in aged. In "DOWLITE" (KARACHI) Pp. 106-115, 1966.

Havard CWH: Supplement to the first adition of Fundamentals of Current medical treatment P.54 Staples Press, London, 1968a.

Havard CWH: In "Fundamentals of current medical treatment," Pp. 109-159 Staples Press, London, 1968 b.

Heaf PJD: In "Progress in Clinical medicine" Ppp. 191-197 Churchill, London, 1966.

Heaf PJD: (1970) Brit. Med. Bulletin 26:245-247.

Herberts M: (1965) J. Psychosom. Res. 8:353 (in Medical Annual, 1969).

Howard LA, Coleman M: (1967) Ann. Allergy 25:512-519.

Howell JBL, Altounyan REC: (1967) Lancet 2:539 Quoted by Bignall (1969)

Hurst GA et al: (1967) Am. Rev. Resp. Dis. 96:962-970.

Inman WHW, Adelsten AM: (1969) Lancet 2:279 Quoted by Donald and Flenly (1970)

Itkin IH, Menzel ML: (1970) J. Allergy 45: 146-162.

Jacoby NM: (1966) Lancet 2:1354-1356.

Jaffe JH: In "Goodman and Gilman Pharmacological basis of therapeutical" P. 260 MacMillan, New York, 1965.

Kamburoff PL, Prime FJ: (1970) Brit. J. Dis. Chest 64: 46-54.

Keighley JF: (1966) Ann. Int. Med. 65:985-995.

Kelman GR et al: (1969) Nature (London) 221:1251 Quoted by Donalt and Flenley (1970).

Kennedy MCS: (1967) Lancet 2:838 Quoted by Bignall (1969).

Kerr JW et al: (1970) Brit. Med. Jour. 2:139-141.

Kerrebijin KF, Dekroon JPM: (1968) Arch. Dis. Childh. 43:556-561.

Kidner PH et al: (1968) Lancet 2:426 Quoted by Bignall (1969).

Knowles JP: (1961) Brit. Med. Jour. 2:1396 Quoted by Heaf (1966).

Kravis LP, Lecks HI: (1966) Am. J. Dis. Childh. 111:343-352.

Laurence DR: Clinical Pharmacology P. 373 Churchill, London, 1966.

Livingstone JL, Davies TP: (1961) Lancet 1:1310 Quoted by Heaf (1966).

Maher-Loughnan GM et al: (1962) Brit. Med. Jour. 2:371 Quoted by Heaf (1966).

Mallen MS: (1965) Ann. Allergy 23:534-537.
Megahed GE, Fahmy MS: (1966) Journal-Lancet 86: 177-182.

Nicholson H: Management of asthma. In " "DOLITE" (Karachi) Pp. 40-44, 1966.

Palmer KNV et al: (1970) Brit. Med. Jour. 2:23-24.

Person RSB et al: (1961) *Ibid.*, 1:315 Quoted by Heaf (1966).

Pelz HH: (1967) Am. Jour. Med. Sci. 253:321-324.

Phear D, et al: (1960) Lancet 1:139 Qouted by Heaf (1966).

Qureshi MS: (1970) Medicus 40:280-282.

Qureshi MS: (1970b) Medicus 40:43-44.

Read J: (1968) M. J. Australia 1:879-884.

Rees H, Williams DA: (1962) Brit. M Jour. 1:1575 Qouted by Heaf (1966).ed.

Ress L: (1964) J. Psychosom. Res. 7:532 Quoted by Heaf (1966)).

Riding WD et al: (1970) Brit. Jour. Dis. Chest 64: 37-45.

Ritchie JM: In "Goodman and Gilman Pharmacological basis of therapeutic" P. 363 MacMillan, New York, 1965.

Schnicden H: In "Medical Annual" Pp. 363-368 Wtight and Sons, Bristol, 1966).

Sheard P, Blair AMJN: (1970) International Arch. Allergy and Applied Immunology 38:217-224.

Sherman WB: IN" Cecil Loeb textbook of Medicine" Saunders Co., Pheladelphia, 1967.

Smedland HA et al: (1964) Mayo Clin. Proceedings, Quoted by Heaf (1966).

Smith JM, Devey GF: (1968) Brit. Med. Jour. 2:340 Quoted by Bignall (1969).

Somner AR et al: (1960) *Ibid.*, 1:1092.

Speizer FE et al: (1960a) *Ibid.*, 1:335-339.

Speizer EF et al: (1968b) *Ibid.*, 1:339-343

Sugihara Het al: (1965) Ann. Allergy 23:422-429.

Tai E, Read J: (1967) Lancet. 1:644 Quoted by Donald & Flenley (1970).

Tannenbaum JI, Smith RE: (1966) Ann. Allergy. 24-:37-40.

Tattersfield AE, McNicol MW: (1970) New Engl. Jour. Med. 281:1323-1326.

Taylor WF et al: (1965) Ann. Allergy 23:437-440.

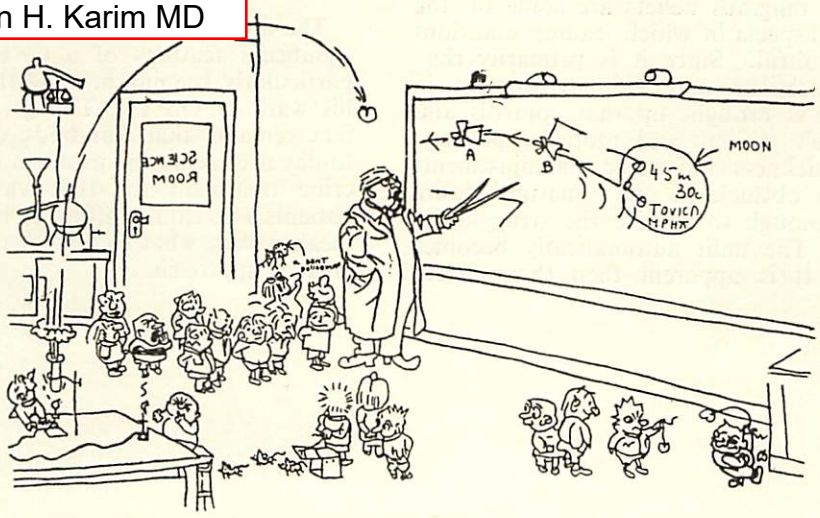
Tudhope GR: (1969) Practitioner 203:410-412.

Walsh SD, Grant IWD: (1966) Brit. Med. Jour. 2:796-802.

Warrel DW, Taylor R: (1968) Lancet 1:117-118.

Warrel DA et al: (1970) Brit. Med. Jour. 1: 65-70.

Younginger JW et al: (1966) Ann. Allergy. 24:469-483.



JUST A CLASS ROOM.

The Role of Psychiatry in Clinical Practice

SYED IRFAN ALI

Final Year M. B., B. S.

NEW PRESIDENT

WRITER'S FORUM

IRONICALLY one of the "blessings" of the artificial life of civilized society is a rise in those disorders of the human mind which are classed as functional. There is no demonstrable pathologic lession, and the diagnosis is therefore mainly clenched by an accurate history.

A patient who comes to the General Practitioner or to a Specialist essentially has an organic disorder, the cure of which falls in the realm of Medicine or Surgery usually. Yet the amelioration of a pathologic condition specifically with disregard to the patient's psyche often defeats the aim of drug therapy. An example is given for clarification. An unmarried woman consulted a Gynaecologist with the complaint of two weeks' amenorrhoea. She gave a history of sexual intercourse, probably the first in her life, some weeks back. The clinician examined her and convinced her she was not pregnant. The next day she mensturated.

An individual's family life, his sexual adjustments, his religious beliefs are some of the important aspects in which leading questions may be fruitful. Since it is primarily the hereditary set up and the environment in which one is brought up that controls and guides one's actions and motives, poverty, illiteracy, sickness and other maladjustments become an obstacle in one's natural desire to be fit enough to survive the struggle for existence. The unfit automatically becomes ill fated. It is apparent then that society owes far more to an illegitimate child, to the aged, to the juvenile delinquent driven to drink, drug or desire because after his graduation he discovers to his utmost grief that the "jack" to push him from behind or the hereditary money bin is unfortunately not engraved on the lines of his fate. Again, the majority of young women today feel that they should be prepared to face life alone if the man leaves them unprotected later on.

Such patients often give a typical history of chronic depression or anxiety and can be dealt with effectively by a trained Psychiatrist. The clinician has little to do. But if the same patient comes with asthma or ulcerative colitis or peptic ulcer, the physician or the surgeon has to keep in mind the psychogenic etiology of such diseases and to mention it in the history, if indicated by the patient, so that the Psychiatrist attached to the hospital can do the needful. At the other extreme, the same physician or surgeon can himself change the outlook of the patient by emphasizing to him the harmful effects of hurry and worry, and by taking an interest in the patient as a human being.

It would not be wrong to say that the greatest problem a Psychiatrist faces today is of convincing those patients who have themselves tried to solve their psychological problems by reading books or by practical experiences. Medical students stand out in this category of "patients".

The above article has in short outlined the significant features of a developing science, particularly keeping in mind the clinician and his ward or O.P.D. Though the very stark fact remains that hundreds of practitioners to-day are facing the problem of how to prescribe treatment for that vast majority of patients who cannot afford to have two square meals a day, what to talk of the elegant psychiatric approach.

Clinical Symptomatology of Chills

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A CHILL is defined as shivering or shaking, an attack of involuntary contractions of voluntary Muscles accompanied by a feeling of cold and by pallor of the skin. Also known as rigors. Chills are common in many febrile illnesses. Whether a single chill occurs or the patient complains of repeated episodes of chills is often of diagnostic significance.

Single Chill :

A single rigor at the onset of an acute infection is usual. Among the illness in which an initial rigor is common are lobor Pneumonia, smallpox, influenza, severe colds, septicemia, pyemia, pneumonic tuberculosis, typhus, and relapsing fever. A single attack ofchills may characterize the onset of erysipelas, cerebrospinal fever, acute poliomyelites, Malaria, Yellow fever, weil's disase, and trench fever. It also may occur after catheterization, certain injections and blood transfusions.

In Lobar pneumonia, the initial single attack of chills is often severe and prolonged. This sudden shaking chill occuring in more than 80 per cent of patients, is accompanied by a rapid rise in temperature and corresponding tachycardia. Because more than a single rigor is unusual in penumonia, repeated chills should suggest another disorder. A second attack of chills in any condition characterized by a single rigor suggests complications.

A chill occurring in enteric fever or in the Paratyphoid fevers is a warning of the occurence of such complications as perforation of the intestine acute peritonitis pleurisy, Pneumonia, Middle ear disease, Periostitis or cholecystitis.

Multiple or Recurring Chills :

Malaria is characterized by chills recurring at regular intervals of 48 or 72 hours in the benign, tertian and quartan infections; and at shorter intervals if the infection is mixed. Relapsing fever begins with a chill or series of chills which recurs about two weeks after the patient seems to be convalescing. A second relapse may occur at the end of the third week; in a few patients there is a third relapse.

Multiple rigors are most common in acute blood infections, such as puerperal fever, a bacterial infection of the uterus after child birth which spreads to the blood stream and Malignant endocarditis. Acute infective osteomyelitis and portal pyemia are also commonly characterized by chills. Among other conditions characterized by Multiple chills are acute leukemia, Pyelitis, Pyelonephirits, cystitis, empyema, infective sinus thrombosis, Advanced pulmonary tuberculosis complicated and bronchiectasis.

Causes :

Lobar Pneumonia: in more than 80 percent of patients with lobar Pneumonia, a sudden chill is an initial sign. BACTERIAL ENDO CARDITIS: chill may be a symptom of bacterial endocardits. Bacterial infection usually involves a valve demaged by rheumatic fever. Bacterial endocarditis often camplicates certain types of congenital heart diseases.

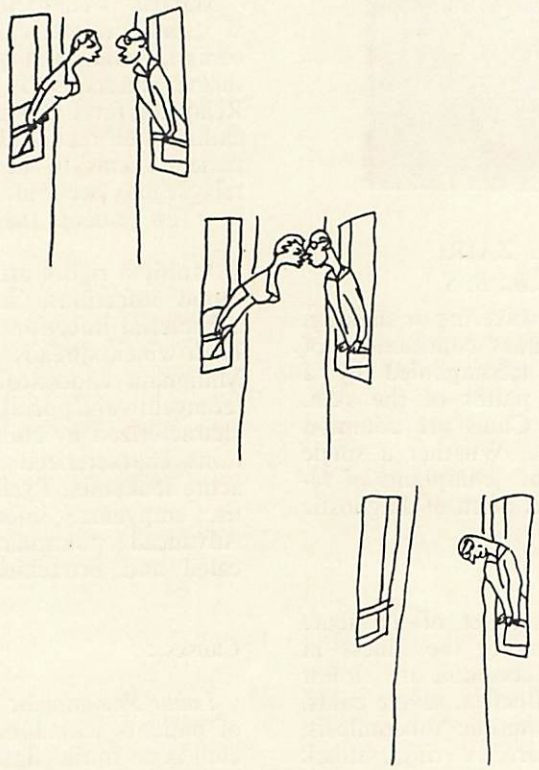
Bronchieetasis: Prolonged bronchial obstruction and infection cause irreversible dilatation of the bronchial tubes. Multiple chills may occur.

Pulmonary Tuberculosis: Chill sensations as toxemia progresses in pulmonary tubercusis occur particularly with an abrupt evening rise of temperature.

Subphenic Abscess: Peritioneal infections have a definite tendency to localize in the subphreuic area. Chills may develop from toxic absorption in abscess formation.

Cholecystisis: If the gall bladder or bile duct are inflamed Jaundice and hepatic pain usually are associated with fever and multiple chills.

(*Contribution from therapeutic notes*)



NO COMMENTS

ENZYMES

KHALID SALEEM ASLAM

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ANIMAL body generally maintains a constant temperature which is quite low and the range of pH in animal body is also very narrow. But we also know that a large number of organic and inorganic reactions are going on in the body. If we try to bring about any chemical change going on in vivo at a certain rate, then we find that under same condition in vitro the rate of reaction is too slow to be detectable even. This suggests that there is something in the body of animals which greatly accelerates the reactions. It has been named ENZYME.

The classical concept of enzymes maintains that they are catalysts of biological origin or simply organic catalysts.

Catalysts are all those substances which alter the rate of a reaction.

The characteristics of a catalayst are:—

1. It is unchanged at the end of the reaction, which it has catalysed. Although catyltic inhibition or poisioning may have taken place. It may be temporary or permanent.
2. Micro-quantities are sufficient.
3. Equilibrium point not affected although reached sooner.
4. Catalysts cannot start a reaction.
5. Catalysts are specific.
6. Temperature effects catalysed reactions.
7. Activation of the catalyst.

Comparing them with the characteristics of an enzyme we see:-

1. Enyzyme remains unchanged at the end of a reaction. However poisioning or inhibition may occur but it is only due to some side reaction.
2. Micro quantities are sufficient.
3. Reaction equilibrim not altered although reached sooner.
4. Enzymes do not start a reaction, although sometimes it seems that they have
5. Rate of reaction is proportional to the quantity of the enzyme within certain limits.
6. Enzymes do not increase the total energy obtained from a reaction, but they enormously increase the efficiency with which it is obtained.
7. Enzymes are highly specific and generally catalyse only one reaction.
8. Sensitive to temperature:- As enzymes are usually protein in nature so rise in temperature causes coagulation and denaturation with consecutive loss of their activity.
9. Electrolyte effect on their colliodal nature —loss of catalytic activity i.e. inhibition.
10. Ultraviolet rays destroy the enzymes generally.

From the above characteristics we can see that enzymes resemble the catalysts in almost all of their characteristics and they have a few of their own.

The modern concept of reaction is not that of compounds reacting with compounds but it is that of molecules reacting with molecules and atoms with atoms. Hence, the latest definition of an enzyme is as follows:—

Enzymes are substances which lower the energy of activation required by a molecule to proceed in a particular reaction."

Energy of activation is the energy required by the molecules or atoms for their dissociation and combination.

If we take the example of sucrose decomposition then we see that it requires about 25,560 calories mol. Of sugar as energy of activation to decompose into glucose and fructose.

Sucrose = Glucose Fructose. But when enzyme sucrose is added to the reaction then we see that energy of activation is lowered to 9,000 calorices/mol. of sugar. It means that

approximately 16,500 calories/mol. of sugar are spared in case of enzymatic dissociation of sucrose, as compared with its acatalytic dissociation.

Many properties of the enzymes can be attributed to their protein structure e.g. enzymes are inactivated by all agents which denature the porteins. Apart from their enzymatic activity there is no criterion by which enzymes can be distinguished from the proteins.

Many enzymes catalyse reactions of their substrates, (Substance whose decomposition or combination is being effected by the enzymes), only in the presence of a particular non-portein compound called a co-enzyme or a prosthetic group. Unless both enzyme and co-enzyme are present, no catalysis takes place. Enzymes requiring a co-enzyme for their activity are called apo-enzymes and an apo-enzyme alongwith its co-enzyme is called a holo-enzyme.

Types of reactions which frequently require holo-enzymes are group transfer reactions. isomerization reactions, oxidation-reduction and reactions resulting in the formation of co-valent bonds. In contrast lytic reactions including hydrolytic reactions such as those catalysed by the enzymes of digestive tract are not known to require holo-enzymes.

The vitamin B complex group Thaimine, Ribolflavin, Niacinic and Pantothenic acid, Biotin, Pyridoxine, Folic acid, Folinic acid, Cyanocobalamines, Choline, Para-amino-benzonic acid and Inositol, all act as co-enzymes. Out of all these thiamine, Riboflavin, Niacinic acid (Nicotinic acid), Pyridoxine are more important co-enzymes. The whole group is water soluble. Fat soluble vitamin, lipoic acid is also an important co-enzyme.

Certain enzymes may exist in the body with same catalytic activity but immunologically, electrophoretically and chemically distinguishable in two or more forms. Such enzymes called as iso-enzymes or simply isozymes e.g., human blood plasma contains at least five isozymes of lactic dehydrogense, all of whihc can readily be separated by electrophoresis.

Nomeclature of Enzymes :

Naming the enzymes is a big problem and it has baffled the scientist for a long time.

Previously the enzymes were named by adding affise "ase" to the name of their substrate, e.g., enzyme hydrolysing lectose was called lactase, that hydrolysing urea was terned urease, etc., etc. Not infrequently the name of the reaction catalysed by the enzyme was also used in place of the name of the substrate e.g. dehydrogenase, decarobozylase oxidase, reductase, etc. The names were given to the enzymes controlling dehydrogenation, decarboxylation, oxidation, reduction, etc., respectively. These are not one enzyme but they are groups of enzymes controlling that type of the reaction; by simply adding the above given names at the end of the name of the substrate, the name of the enzyme can be found.

This was a lengthy procedure and confusing one also when a very large number of enzymes are to be studied. Therefore the Internation Union of Biochemistry appointed an "Enzyme Commission". It came up with the suggestion that instead of using names, the enzymes should be referred to with code numbers. They designated groups of enzymes as number 1, 2, 3 and so on, and then there were subgroups and finally the individual members designated similaiy,e. g., if we want to express that the coversion of lactic acid to pyruvic acid is catalysed by lactic dehydrogenase then instead of writing lactic dehydrogenase we will write i.i.i. according this system.

The first I means that this enzyme belongs to the group of enzymes code numbered 1,i.e., the group called oxido-reductase.

The second 1 means that this enzyme belongs to the subgroup that includes the alcohal dehydrogenase. The third 1 means that it is that alcohol dehydrogenase which has NAD (Niacinamide ademine dinucleotide) or NADP (Niacinamide adenine dinuclaeotide phosphate) as its co-enzyme and hydrogen acceptor.

Code numbers of a few enzymes are given below:

Enzyme	Code Number
Xanthine oxidase ..	1.2.3.
Acctylcholine transferase	2.1.3.
Nucleosidase ..	3.2.2.
Pyruvate decarboxylase ..	4.1.1.
Ribulose 5. P. epimeraso ..	5.1.3.
Peptide synthetase ..	6.3.2.

Usually we have group, sub group and then individual members but sometimes sub-group is followed by a sub-sub-group, in that case the third member is for the sub-sub-group, and the fourth digit indicates the individual number.

Enzyme Specificity :

Enzymes are even more specific than the inorganic catalysis. They generally catalyse only one reaction and only a minor change in the structure, even when it is only a stereo chemical one, inhibits their action, e.g., maltose is hydrolysed to gulocose molecules by maltase.

Maltase is an *x* (alpha) glucosidase and hence will only act on *a*(alpha) glucosides. If the *a*(alpha) glucoside is replaced by *B* (beta) glucoside then maltase will not be able to hydrolyse it.

Similarly urease, arginase, lactase, sucrase can only hydrolyse urea, arginine, lactose and sucrose respectively. The enzymes have no action whatsoever on compounds which are very closely related to their substrates even.

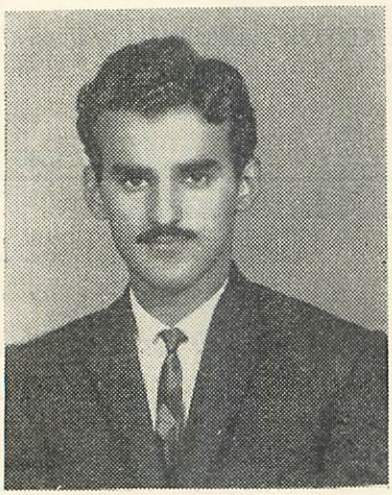
References :

1. ENZYMES *By Dixon and Webb.*
2. Text Book of Bichemistry *By West anp Todd.*
3. An Outline o Enzymes. *By Neiland and Stumpf.*
4. Review of Physiological *By Harold a Harper Chemistry.*
5. Text book of Biochemistry *By Fruton and Simmonds.*

INSOMNIA

SLEEP is a great gift from nature. This is a physiological phenomenon but like several other physicological processes the exact mechanism of sleep is not yet clearly understood.

In clinical practice several disorders of sleep may be met with. It may be increased, diminised or disturbed. The commonest of all these is diminution in quantity of sleep. It is called Insomnia and will be discussed here.



MAZHAR MUNIR TABASSUM
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Causes of Insomnia :

The causes of Insomnia may be divided into two groups:—

(a) Psychical causes.

(b) Organic causes.

[a] Psychical Causes :

There may be three subgroups in it.

(*i*) *Anxiety:* It may be due to several factors like domestic and financial difficulties, love affairs, examinations, etc.

[2] Habit of Thinking :

Some people are in the habit of thinking something all the times. It may cause insomnia. For example, thinking of past events and visualising the scenes, rehearsal for conversation etc., may cause Insomina. In young adults thinking about love affairs, making plans and their implimentations may cause lack of sleep. In elderly businessmen, the business worries are commonest factors to cause insomnia.

[3] Obsession :

A patient has, sometimes, an idea that he cannot sleep although there is no organic lesion. Such patients need psychotherapy.

[b] Oragnic Causes :

These causes are less common than the psychological causes. Sleeplessness may result from some pain in the body or from dyspnoea. Some febrile conditions may cause insomnia. Organic brain diseases like cerebral arteriosclerosis may cause insomnia. In early stages of uraemia and alcoholism it may be present.

(*c*) Insomnia in Obst and Gynae, patients:

Sleeplessness may occur in pregnancy as a part of anxiety neurosis. This may be due to physical discomfort, heart burn or backache etc.

Sleeplessness may occur in perpuerium which may be due to after pains, engorged breasts, sometimes due to haemorrhoids.

Sometimes insomnia occurs as a warning signs of incoming mental illness.

[d] Insomnia in Infancy and Childhood:

Refusal or failure to sleep in infancy and childhood is almost always a behaviour problem due to mismanagement or refusing the child's request.

In older children school worries ... times casual factors.

Treatment of Insomnia :

The most important factor in the treatment is to find the cause, remove it and prevent its recurrence. Some patients think that sleeplessness will cause insanity and taking of hypnotics will cause addition. Such patients require firm reassurance.

Physical treatment :

This may be given in slight cases and consists of comfort, quiet atmosphere, warmth, and hot baths followed by massage. Over fatigue, emotional, intellectual and sexual stress should be avoided. These measures will be sufficient to restore normal sleep in ordinary psychical cases.

Hypnotics :

In severe cases where insomnia is becoming troublesome and incapaciating the patient, the use of hypnotics is indicated. The following principles should be observed when prescribing a hypnotic.

(a) The patient should be explained that it is better to take hypnotic than to remain sleepless.

(2) The drug should be prescribed for a stated initial period e.g. for a week or a fortnight.

(3) The time at which the drug is to be taken should be clearly told to the patient.

(4) Adequate doses should be prescribed.

...otics are of the following four types:—

(a) Long acting:- e.g. Barbitone, Phenobarbitone,.

(b) Intermediate Acting:- e.g. Amylobarbitone, etc.

(c) Short Acting:- e.g. Cyclobarbitone, Pentobarbitone, etc.

(d) Ultra short Acting:- e.g. Hexabarbitone, etc.

When a patient is having difficulty in falling to sleep, a short acting barbitone should be given, when a patient wakes up during the night, a long acting barbturate should be given.

When mental stress is a cause of sleeplessness "Amylobarbitone" may be given in a single daily dose of 50 mg. upto maximum dose of 20 mg. or Butobarbititone in a dose of 100-200 mg is also useful.

When pain is a cause, Tab. Codeine 1-2 G. or Paracetamol in 0.5-1 G. dosage may be given. In severe pains Methadone in a dose of 5-10 mgs. may be used.

In restlessness chlorpromazine 25-50 mgs. orally with Phenobarbitone 60-200 I/M may be given.

When Insomnia is due to old age, Alcohol (Whisky, Brandy) I oz. dose may be given.

NEOPLASMS [Cancer]

By

SYED MANSOOR HUSSAIN

1st Year M.B.,B.S.

NEOPLASM is a malignant growth of body cells. One of the great mysteries of human pathology is the etiology and nature of cancer. There is a great variety of neoplasms of both plants and animals and there is a variety of causative agents. Whether any of these agents is a living organism is still unknown with regard to human neoplams, but several neoplasms of animals are due to viruses. Some plant neoplasms e.g. crowngall are due to bacteria, some e.g. wound tumour are due to viruses. Whether, by studies of the neoplasm of animals or plants, the secret of human neoplasms may eventually be revealed, none can say. There are many suggestive analogies between the infectious animals and vegetable neoplasms on the one hand and human neoplasms on the other but the actual relationship, if any, is still obscure.

It is definitely known, that in cancer, body cells are mutated by certain agent, hence, they become abnormal in the sense that their metabolic activities are increased with consequence a rapid division of cancer cells take place. They act as foreign to the tissue or body of origin; are no longer held in check by the normal growth regulating hormones etc. They grow independently, often without regard for normal physiological limitations, spreading and growing everywhere, each tumour cell a malignant parasite. Sometimes they grow slowly and within definite bounds—Benign tumour.

Neoplasms, Viruses and Mutation :

Let us see, what are the causative agents of neoplasms. The cause of human malignant neoplasm is unknown. There may be various causative agents.

It is observed that prolonged mechanical irritation or injury usually results in neoplasm. In the continued presence of irriation and injurious agents it is readily conceivable that the cell of the new growth may be altered, (because of irritation and injury cells are killed, new growth tends to replace them, newly formed cells may be changed by some neoplastic viral agent) So that they mutate, and become malignant independently growing cells. What are these irritating and injurious agents?

Carcinogens :

These irritating agents are x-rays, ultraviolet and other irradiations, certain coal-tar derivaties-methyl cholan thrence etc., mustard oil, petroleum oils, tarpitch, certain aromatic amines etc. All these agents, on application induce neoplasm. These substances are called carcinogens or carcinogenic. For instance, if coal tar is applied on a rat, after three months, he develops sacrcoma-micenoplasm! How these agents act on living cells is not well established but one striking effect of all of them is the production of mutation! Such agents are not only carcinogenic but mutagenic also.

How carcinogens act as mutagenic? Are the organisms responsible for it? Yes, there is a possibility that virus may act as carcinogonic by bringing mutation. How virus acts as mutagenic? In order to understand pretty clearly the mutagenic nature of virus, let us have a brief discussion.

Virgology :

Some general properties of virus:—

Very small in size, so minute as to make bacteria seem enormous by comparison. They are obligate parasites i.e. inability to propagate outsidde living cells. Because they are obligate parasites, no saprophytic viruses are known. One of the most distinctive differential properties of all virsuses is that of host specificity i.e. under natural conditions virus can infect only one single species of animal or plant, for example polio virus infects man, monkey but not cats.

Chemistry and Physics of Viruses :

Virus appears to consist of a central core of nucleic acid surrounded by protein coating.

They both loosely combine to form nucleoprotein. No Carbobyydrates or fats are

present. They are non-cellular: Nucleoprotein is in fact the genetic material. Viruses appear to have no metabolism. They are speck of genetic material.

The hydrolysis of nucleoproteins shows that they consist of:

Protein
Nuclicacid
Nuclicacid further consists of:
Phosphoric acid
Carbohydrate may be and—ribose or
d-2-deoxyribose
2 purinebases—
adenine
Quanine
2 pyrimidinebases
Cytosine
Uracil (RNA)
or
Thymine (DNA)

The pyrimidine base Uracil is present in RNA and Thymine in DNA. The arrangement of above constiteunts of nucleoprotein is complicated and lengty. It is important to note that in plant viruses RNA is present while animal viruses have any of the two-DNA or RNA, Phages have DNA.

Bacteriophage or phages:

Viruses are of different types, but bacteriophage is one which is apart from our discussion.

Bacteriophages or simply phages are those viruses which infect bacteria. The mode of action of a virus upon a bateria is discussed briefly as follows:—

Bacteriophage is sperm like, its tail contains at its tip a special mosaic of molecules, this mosaic of molecules corresponds to a point on the bacteria called the receptor (the relation is more or less similar to that of lock and key). The phage attaches itself with its tail to the bacteria. The core of the virus is passed into the bacteria. The DNA ofphage enters the genetic government of the cell. Phage DNA takes over the synthetic mechanism and causes them to synthestic at first phage nuclic acid and then phage protein coatings. The period between the first attachment of virus to bacteria to the production of phageprotein coating is known as latent period.

Phage nucleic acid combines with protein coatings to form phage particles, which ultimately rupture the bacterial cell, this phenomenon of rupture of bacterial cell is called cell lysis or simply lysis. The phages which bring about lysis are called vircelent phages.

Sometimes it happens so that the phage does not produce lys is but occupies some position in its genetic material as a gene. It behaves just like a gene, it duplicates itself and thus transferred to new generation. Such a phage is called prophage or latent phage or symbiolicphage. A bacterial cell in which prophage exists is called lysogenic. The behaviour of prophage may result in mutation Viruses which attack cells and remain there as latent phage or prophage are called provirus. So we see that how virus can act as mutagenic.

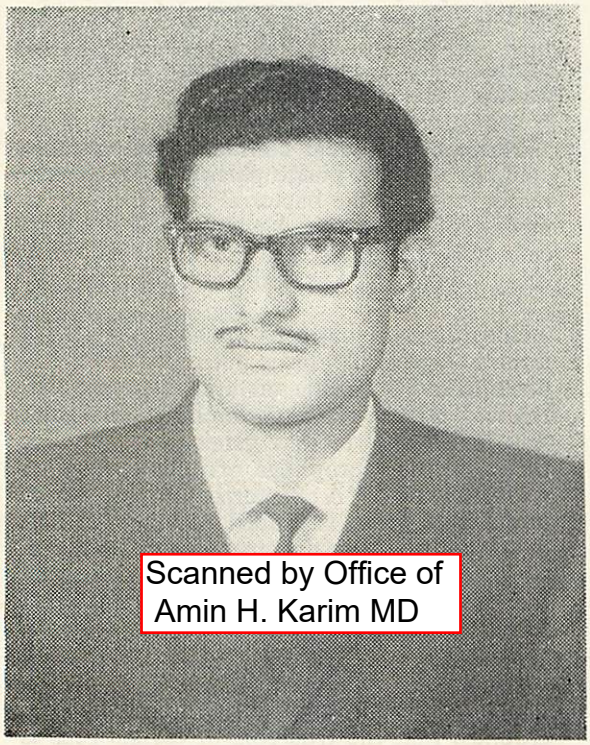
It has been suggested, on reasonable grounds, that the true role of carcinogens is to induce cancer viruses which may like phage in lysogenic bacteria, be latent in the tissue cells of certain people. Anyhow it is only a suggestion and should not be taken as an established fact.

Any reader who solves this problem will be recommended for the Noble Prize.

References :

Martin Frobisher Microbiology.
West and Todd Biochemistry.
Fair Brother Bacteriology
William Boyd Pathology.
Bell, Davidson and Scarbrough.
Biochemistry and Physiology.
Ruth Moore Evolution.

Clinico-Pathological Quiz



By

NASIR UDDIN KHOKHAR

Final Year M.B.,B.S.,

—Each Question carries one mark—

TARGET	20	—	Above	Excellent
	16	—	19 —	Good
	12	—	15 —	Fair
	Below	—	12 —	Bad.

(1) The Commonest tumour that occurs in the UTERUS is:—

(*a*) Fibroid Tumour (Fibromyoma)
(*b*) Carcinoma of Body
(*c*) Carcinoma of Cervix.
(*d*) Sarcoma.
(*e*) None of them.

(2) In Inflammation of Pericardium a haemorrhagic effusion suggests:—

(*a*) Rheumatic Pericarditis.
(*b*) Malignant Pericarditis.
(*c*) Uraemic Pericarditis.
(*d*) Viral Pericarditis.
(*e*) None of them.

(3) 1. Pinpoint and fixed pupil. 2. Pyrexia and 3. Paralysis are characteristic feature of:—

(*a*) Middle meningeal haemorrhage.
(*b*) Subdural Haemorrhage.
(*c*) Pontine Haemorrhage.
(*d*) Compression of spinal cord.
(*e*) None of them.

(4) The bones surrounding the Foramen magnum become in-vaginated into the cranial cavity causing deformity of intracranial structures, associated with congenital anomaly of cervical vertebrae. The condition is:—

(*a*) Gilles de la Tourette's syndrome.
(*b*) Klippel-Feil syndrome.
(*c*) Gronblad-Strandberg syndrome.
(*d*) Peutz-Jeghers syndrome.
(*e*) None of them.

(5) The anterior curvature of spine is increased in Lumber region, the condition is:—

(*a*) Kyphosis.
(*b*) Scoliosis.
(*c*) Lordosis.
(*d*) Spondylolisthesis.
(*e*) None of them.

(6) Oral contraceptives have been shown to cause :—

(*a*) Thromboembolism.
(*b*) Nephrotoxic reactions.
(*c*) Urinary retention.
(*d*) A condition closely simulating Miculicz disease.
(*e*) None of them.

(7) The most common complication of Acute Tonsillitis is:—
(*a*) Peritonsillar abscess.
(*b*) Abscess within the Tonsil.
(*c*) Laryngeal oedema.
(*d*) Crigler-Najjar Syndrome.
(*e*) None of them.

(8) VAGINAL THRUSH is due to:—
(*a*) Candida albicans.
(*b*) Virus infection.
(*c*) Trichomonas vaginalis.
(*d*) Acute gonorrhoea.
(*e*) None of them.

(9) A severe Iron Deficiency Aanemia is caused by:—
(*a*) Ankylostoma duodenale.
(*b*) Diphylobothrium latum.
(*c*) Fasciloa hepatica.
(*d*) Trichuris trichuria.
(*e*) None of them.

(10) Mallory-Weiss syndrome means:—
(*a*) Haemetemesis due to tears at the lower end of the oesophagus
(*b*) Haemoptysis associated with glomerulonephritis and haemosiderosis.
(*c*) Accumulation of Homogentistic acid in the tissue.
(*d*) Presence of Beta-hydroxybutyric acid in the urine.
(*e*) None of them.

(11) Phenacetin has been condemned for its:-
(*a*) Ototoxicity
(*b*) Nephrotoxicity.
(*c*) Hepatotoxicity.
(*d*) Neurotoxicity.
(*e*) None of them.

(12) The patient is a healthy looking active man, who for years has had attacks for Hyperacidity after overwork, worry or indigestible food, he develops pain 3—4 hours after food or in the night: Relieved by taking food or Antacids. The disease is likely to be:—
(*a*) Chronic gastric ulcer.
(*b*) Chronic appendicitis.
(*c*) Chronic calculous cholcecystitis.
(*d*) Chronic duodenal ulcer.
(*e*) None of them.

(13) Intention tremor (2) Nystagmus (3) Scanning speech, constitute:—
(*a*) Virchow's Triad.
(*b*) Charcot's Triad.
(*c*) Saint's Triad.
(*d*) Stein-Leventhal syndrome.
(*e*) None of them.

(14) HIPPOCARATES (460-370 B.C.) is universally known as:—
(*a*) Father of Pharmacy.
(*b*) Father of Medicine.
(*c*) Father of Optics.
(*d*) Father of anti-septic surgery.

(15) Cycloserine is used in chemotherapy of Tuberculosis. It belongs to group of drugs:—
(*a*) Antibiotics.
(*b*) Sulpha derivatives.
(*c*) Thiourea Compounds.
(*d*) Salicylates.
(*e*) None of above.

(16) The patients of diabetis mellitis in LATER stages often suffer from:—
(*a*) Haemorrhagic telangiectasis.
(*b*) Myocardial infarction.
(*c*) Thrombotic thrombocytopenic purpura.
(*d*) Intra cranial aneurysms.
(*e*) None of them.

(17) Erythrocyte sedimentiaton rate about 100 mm.in first hour is suggestive of:—
(*a*) Oral contraceptive administration.
(*b*) Carcinoma of gut.
(*c*) Wolff-Parkinson-White syndrome.
(*d*) Vitamin Deficency.
(*e*) None of them.

(18) Which of the following statements is CORRECT?
(*a*) SGOT level in blood is raised in myocardial infarction.
(*b*) Tremor in hand are diagnostic of Thyrotoxicosis.

(*c*) Trasylol has a thrombolytic action and has been used in treatment of intravascular thrombosis.

(*d*) In Pernicious anemia combined therapy with Folic acid and B12 gives best results.

(*e*) None of them.

(19) Which of the following statements is INCORRECT?

(*a*) Ergotamin is to be used with care in patients with Peripheral vascular disease.

(*b*) Plummer—vinson syndrome means combination of:—
Anaemia, Dysphagia, Glossitis.

(*c*) 50 per cent cases of duodenal ulcer become malignant.

(*d*) Headache, vomitting, papilloedema means Intra cranial hypertension.

(*e*) None of them.

(20) Which of the following statements is CORRECT?

(*a*) A newer drug Amantadine has been shown to be effective in Parkinsonism.

(*b*) Subacute combined degeneration of spinal cord is usually due to deficiency to RIBOFLAVIN (Vitamin B2)

(*c*) TETANY usually occurs due to Hypothyroidism.

(*d*) BILLROTH I means gastro-jejunostomy.

(*e*) None of them.

(21) Which of the following statements is INCORRECT?

(*a*) GOITRE means an enlargement of thyroid without any structural or functional change.

(*b*) Piprazine is used in treatment of ASCARIASIS.

(*c*) The gall stones are commonly mixed cholestrol and Pigment stones.

(*d*) LERICH'S syndrome means obstruction of inferior vena cava.

(*e*) None of them.

(22) Which of the following statements is CORRECT?

(*a*) BERI BERI results from the prolonged consumption of a diet devoid of fresh fruits.

(*b*) Blackwater fever is a result of severe infection by shistosoma haematobeum.

(*c*) Gout is characterised by degeneration of articular cartilage.

(*d*) Tape worm infestation should be treated with VIRRYNIUM.

(*e*) None of them.

(23) Which of the following statements is INCORRECT?

(*a*) Hyperthyroidism is more common in females.

(*b*) LACTULOSE has been used in the management of hepatic coma.

(*c*) Myxoedema should be differentiated from obesity.

(*d*) Phaeochromocytoma means a tumour of adreanal cortex.

(*e*) None of them.

(24) All but one of the following statements are CORRECT.
Indicate the exception:—

(*a*) Athetosis is a disorder of extrapyramidal system.

(*b*) In osteoporosis deminiralization of bone occurs.

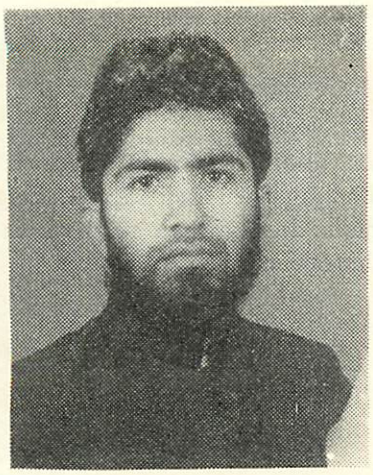
(*c*) Sarcoidosis is caused by a Gram positive bacillus.

(*d*) Clofibrate and cholestyramine are usedful in atherosclerosis.

Answers :

(1)	*a*	(2)	*b*
(3)	*c*	(4)	b
(5)	*c*	(6)	*a*
(7)	*a*	(8)	*a*
(9)	*a*	(10)	a
(11)	*b*	(12)	*d*
(13)	*b*	(14)	*b*
(15)	*a*	(16)	*b*
(17)	*e*	(18)	*a*
(19)	*c*	(20)	*a*
(21)	*d*	(22)	*e*
(23)	*d*	(24)	*c*

NATURE OF ELECTROENCEPHALOGRAM DURING SLEEP!



ABDUL HAKEEM
2nd Year M.B..B.S.

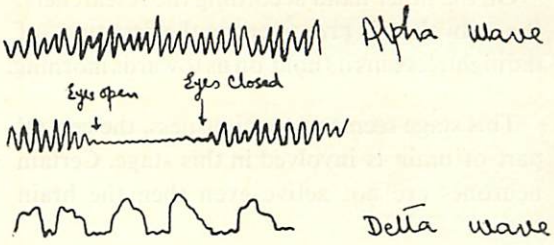
INfact it is a strange, profoundly mysterious process of the body and mind. The pace of current discory by the sleep scientist is startling.

The process by which the electrical activities in the brain noted is known as Electroencephalography, Synchronous activity of literally thousands or even millions of neurons must take place for a wave to be recorded from the scalp.

Changes during night's Jaurney: Sleep is considered as the black blanket of darkness, consisting of dreams. During night sleep a person drifts down and up through different stages of conciousness can be recorded in the form of waves.

While the subject is awake shows the electrical activity, the type of wave obtained is given the name Alpha. It occurs at frequency between 8 to 13/Sec. It disappear during sleep, the state of serene relexation and devoid of concentrated thought.

In this early stage of sleep person may be awakened for a moment by a sudden spasm that causes his body to jerk. This in the myoclonic jerk found in normal man sleep, *Deep Sleep*. It actually consists of Four stages. In the earlyar stage the pattern of sleepers wave is pinched, irregular and rapidly changing.



His muscles are relaxing, heart rate is slowing down.

In the second stage the pattern of wave resemble the spindle and his eyes moves under cover of lids.

3rd stage of the pattern of waves, in this stage can be reconsidered by large and slow waves occuring about once a second and Heartrate decreases, temp decreases, B. P. decreases and muscles relax es more.

After about 20 to 30 minutes the stage reaches to deep state i.e. stage IV revealing slow and large waves known as Delta waves. Now the person can not be awakened easily.

The movement of eye: The next stage is though succeded by 4th stage after about 90 minutes having brain waves of lightest sleep resembling those of awaking but not easy to awaken, it is the special variety of stage one reffered to as R.E.M. stage. In this stage he remembers dreaming in vivid detail, after about an hour, drifts to the longer R.E.M. It has been noted that each night entire cycle is repeated about 4—5 times.

Mysteries of Oblivion. In this discussion Two stages are of particular interest i.e. R.E.M. and Delta.

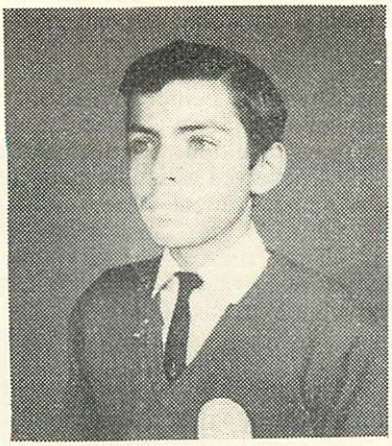
The rapid eye moving stage is the variety of stage I. Neurologists studing cats have found, unusual activity during R.E.M. sleep in the brain centres associated the memory and emotion.

On the other hand according the researchers, the delta sleep is prominent in the first part of the night, lessons its hold on us towards morning.

This stage seems unconciousness, the central part of brain is involved in this stage. Certain neurones are not active even then the brain is not inactive. It is related to certain disorders as in a time of bed wetting, night terrors may cause a child a to shriek and continue screaming for his mother even when seated on her lap and clasped in her arms but on awakning remember only frihgt but not dream.

Another disorder of this stage is the somnamb ulisits begin their sleep walking and having more dreams than we have in our mind lie burried in this deep slumber.

Transfusion of Blood : Its Substitutes



AHMED SIBTAIN JILANI
IInd Year M.B.,B.S.

BLOOD transfusion is a medical process which is carried out due to loss of blood in great quantity and in severe cases of anaemia. In this process blood is transferred from the donor to the receiver, both having the same blood group, otherwise it will lead to the destruction of Red blood cells. However, during emergencies, when the blood of the same group as that of the patient is not available, we make use of the substitutes of blood.

There is of course, no substitute for blood since no preparation so far known, has the ability inherent in haemoglobin, for the carriage of Oxygen or the presence of red blood cells with their important space occupying property and other specialized functions. Substitute can therefore, only sustain the blood volume by their presence and their osmotic pressure.

Criteria Substitutes of blood have been choronon the basis of the following criteria:-

1. They should not leave the circulation rapidly, but should remain until replaced by normal plasma proteins.
2. They should have the same viscosity and colloid osmotic effect as blood.
3. They should be non-toxic, non-pyeretic, non-antigenic, should not interfere with blood clotting or grouping, be easily sterilized and should not be stored in the body for long periods.

It is seen that some of the substitutes have nearly matched these criteria and has found clinical usefulness in replacing blood. They are as follows:—

Palasma :

This in its pure form is blood without cells and would therefore replace most of the functions of the blood, with a notable exception of Oxygen carriage. As such however, it is not easily available and we depend upon reconstituted human plasma which has been obtained by acid-citrate-dextrose preserved bank blood. This is of proven value in the treatment of acute deficit in plasma as seen in burns, peritonitis and crush injuries.

Plasma has a minor defect of containing excess of sodium, and being irritative to peripheral veing. Another major defect is the possibility of its contamination with the virus of infective hepatitis. This was especially feared with pooled plasma, which came from donors and was then lyophilised. This fear was minimized by Allen in 1954, who found out that the virus became inactive when the plasma was stored for six months at room temperature, which was subsequently corroborated by Hoxworth and Haesber in 1956. Another way to prevent virus hepatitis is the use of crude albumin solution containing 80-90% albumin.

Apart from the risk of virus infection, certain biochemical reaction may follow the use of plasma. If the plasma has been taken from old blood, the potassium level will be high and large infusions of such high concentrations rapidly administered in a shock-patient are potentially dangerous. Despite these dangers, plasma is reasonably safe as a blood substitute.

Concentrated Serum Albumin :

I is a virus free plasma fraction, and can be easily sterilized. After infusion it causes further expansion of plasma due to the raised osmotic pressure, drawing in water and salts from extravascular to intravascular space. Its usefulness is limited by short supply and high cost.

Intra-vascular colloids :

These substances by virtue of their colloid osmotic pressure hold water and salts in the blood stream, producing a temporary increase in volume equal to that infused. The effective osmotic pressure is established only when colloids of size approximately that of human albumin are present (i.e. about 50,000 M.W.) Mollecules smaller than this size are lost quickly through the capillaries, thus reducing the therapeutic effect of solution while molecules larger than that are associated with damage to the tissues and many interfere with blood grouping and cross matching.

Dextrans :

Dxtrans has been found to be one of the best long lasting substitutes of blood available today, and is of the greatest importance when mass application is necessary as in war or multiple road accidents. These are polysaccharides of varying molecular weights. Their biochemical and physical properties are dependant upon the average molecular weight, its distribution and molecular structure.

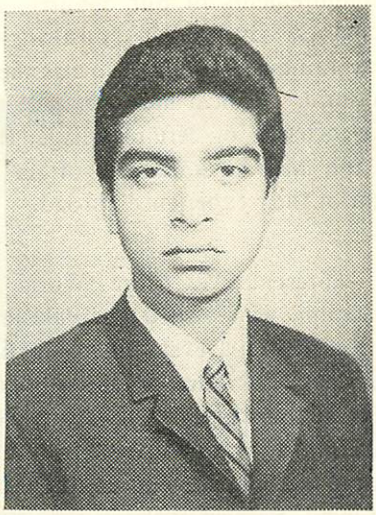
A serious defect in the large infusion of clinical dextran is the risk of coagulation, possibly due to the dilution of clotting factor. When larger transfusion of dextran is required alternate fresh blood and dextran should be considered. This would prevent erythrocytic dilution.

Research work is being carried out on the possibility of using Low Molecular dextrans as a substitute of blood. Gruber and colleagues in 1964 observed a significant increase in plasma volume present three hours after infusion of L.M.W. dextrans, or low-viscosity dextrans. They suggest that it could start replacement therapy as it not only improves blood flow but expands blood volume. However clinical dextran has a better effect as blood substitute.

Although, till now, the ideal blood substitue has not been found, plasma and clinical dextrans are substances of proven merit. They may be used safely provided the dangers mentioned above are known and anticipated.

In view of the intensive research work going on for a better replacement of blood, it is quite possible that in the near future, other solutions may appear which may satisfy the criteria of acceptability to a greater extent, but the fact remains that none of them could ever replace the true functions of the Red Blood Cells, and therefore be as effective as blood itself.

Campaign Against Malaria in the Rural Sectors of Pakistan



MOHD AZMAT HUSSAIN
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LIKE many other developing countries, sufficient medical aid to rural and more undeveloped areas is one of the major problems in Pakistan. Practically more than 80 percent of total population of our country live in remote rural areas. But, unfortunately, most of the Govt. servants—both of higher and lower classes, most of the educational institutions—specially medical institutions, trade and industry centres are situated in comfortable, luxurious towns. For this reason, all rural development programmes of the Government and also the donating mood of agents interested in amelioration of human sufferings, have come to an ultimate stop, as the mentality of the 'top-class' people always back the pleasure-offering towns, neglecting the dark and dismal villages.

Every year, the people of the rural areas of both wings of Pakistan suffer heavily from some infections of which malaria is the worst, which arrests the nation's economy strongly by taking the life of some 250,000 people a year. During the last 7 years evidence in Pakistan, it has been shown that instead of a marked fighting against malaria—the deadliest enemy of this tropical country, there has not been a satisfactory decrease in the death-percentage, quite obviously due to the one-sided view of the "side and surroundings," which is against the rural life.

Nearly about 20 millions of our people suffer from malaria annually which incapacitate them for more than a week hindering their productive energy for 2/3 months. This is a staggering loss to a rising nation like ours, and the Govt. of Pakistan has designed a 14 years Malaria-Eradication Programme to save the nation at all costs. The Government has sanctioned Rs. 410 millions in the 3rd five year plan, assisted by W.H.O. and U.S.A.I.D. the organisation are also providing specialised training to the people to check this epidemic disease from East and West Pakistan.

In West Pakistan, the programme began in several districts, taking care of the rural and undeveloped areas, the entire province being divided into several 'malarial zones' having a million people in each.

In East Pakistan also, the programme has begun in the same manner. There the campaign has been successful in many towns, namely Dinajpur. where success is the most, yet the completely eradication programme has been interrupted due to heavy rain-fall and poor drainage system in the village areas, where water gathers in large quantities facilitating the breeding of that special type of infected mosquito which carries malaria; hence special notice must be paid to these undeveloped, watery areas.

Two centres for training of the anti-malaria personnel in the country have been opened in Lahore and Dacca. The progress report

of the personnel shows that the people protected from malaria is expected to excess 105 millions annually; and the Government is very much hopeful that Pakistan will be greed from this fatal infection by 1974 completely.

The announcement of the Government is 'ever welcome' but my opinion says, that the progress of eradication will be more accelerated if the authorities draw their kind attention to some other indispensable operations. They have to change the centre of gravity of the nation, i.e., their notion should be directed towards the poor and backward areas. The rural dwellers should be given free treatment; the blood samples should be tested patiently and systematically by suitable doctors. Besides the towns, there must be epidemic disease hospitals in every rural area. The hospitals must have a supply of adequate, upto-date medicine. Keeping in view all rural requirements of our country, most of the doctors of 'Govt-sponsoring-foreign-medical training", should take classified training in rural medical aids, so that, if made medical-incharge of certain village, they can enrich the medical conditions of the area in the light of their experience abroad.

The representatives from World Health Organisation, who visited the Pakistan Academy for Rural Development at Comilla, opined that Pakistan is showing burning progress in this respect. It is expected that in near future, super-active and enthusiastic Pakistanis will contribute more to the national development, passing through the process of eliminating this mighty enemy from all sectors—developed and undeveloped, specially from the rural zones of Pakistan.

Kissing : .. *The anatomical juxta position of two orbicularis oris muscles in the state of contraction.*

Library : .. *Thought in cold storage.*

Mosquito : .. *Skin diver.*

Parents : .. *People who bear infants, bore teenagers and board nemlyweds.*

Psychology : .. *The science that tells youwhat you already know, in words you can't understand.*

Psychiatrist: .. *A blind doctor in a pitch black basement looking for a black cat that isn't there.*

Smile : .. *A light in the window of a face which shows that the heart is at home.*

Spinster : .. *A woman who has been missed to long.*

Twin : .. *Wombmates.*

Wise Girl : .. *One who realizes that kissing not only spreads—germs—it lowers resistance.*

The "Satelite" DNA

By

M. SHAHED OMAR

3rd Year M. B., B. S.

ANY flower can't be helped to be called anything but "flowers"; still all flowers can never be what some are. Be it the gorgeous or the vivid ones or the very serene and sober ones; never would they fail to display their charm. Be it the ones with the most rapturous and voluptous of odours or the ones so tranquil and sober; nevertheless would the odour enhance the charm and attraction. They would, on rounding up by leading to the same way—the eventuation and perpetuation of the race. Such is the way that the various families of DNA behave. All would be transcribed to RNA that information be conveyed and carriedout.

Investigations, that were to bear the fruit of the discovery of Nucleic Acids, were to be carried out by Friedrich Miescher (14), as early as the 1890s. It was only in the early 1940s that DNA was ascertained as a normal constituent of living cells (6,7). In the 1960s DNA, independent of nuclear DNA. was isolated from various cellular organelles and components. The mitochondria have their own DNA (8,15), transcribing far free from the nuclear DNA(8); so do have the chloroplasts (10) as evidenced from those from Acetabularia mediterranea. Recently, however, Dr. Eugene Bell reported another type of DNA—the informational DNA (1 DNA) that was suggested to have functions similar to the messanger RNA, thereby shattering the mRNA theory (1). The hypothesis has suffered a big shock when Fromson and Nemer provided evidence that 1-DNA was just an artefact produced during isolaction techniques (9). The last word is still awaited.

It was in 1964 that a dawn of surprise startled man when there were detected multiple copies of DNA of base sequences similar, in the nuclear chromatin. Evidence hailed from both the plant and the animal worlds. Now that isolation has been achieved in all higher species examined it forms about 10 to 12% DNA of genome sequestered in a chemically distinct fraction (16) but the extremes lie between 2% (ref. 16) and 80% ref. 5). A distinct buoyant density suggests a distinct nucleotide sequence (16). A very prompt rate of re-association on annealing idicates DNA segments of repeated sequences (4, 5, 12, 16). These repeated segments of DNA help to distinquish from bacterial DNA (17).

An imperfection of repetition is ascribed to what produced the amplified family (5). It is becoming increasingly clear that gene-amplification is not all that uncommon (16). The repetitive DNA 'Family' members resemble, the number of bases mounting from 50 to 2 million (5). The reasemblance suggests an evolution spread over a few million years—such neo-Darwinian concepts can be tagged with nothing but genetic advantage.

The number of DNA segments of similar base sequences in one of the cells is the Repetition Frequency. Calf cells have no frequency between 10 and 10,000; while roads, snails have none more than 10,000 members (5). The frequency 10,000 to 1 million appears to be popular with mammals (5). Multiplicities range, however, from 10^2 to 10^6 per genome (4). Compositions of satellite DNAs from a different species differ as widely as the relatie proportions of satellite DNA present (20).

The repetitive DNA, so baptized "Satellite" DNA, has been under study from mouse quarters. The mouse satellite DNA is 10% of all DNA (17) regardless of the site of cells analysed. Renaturation kinetics determine 106 copies per genome, and they are some 400 nucleotide pairs long (21). Renaturation kineties as determined by Henning and Walker (20), point to tandem repeats of identical sequences about 130 to 300 base pairs long and perhaps a family has sequences only about ten or fewer base pairs long. Mouse satellite DNA has the second fastest renaturation kinetics (4,12). Its localization has been indicated in centromers (12, 17) of chromosomes, nucleoli (12,18), dense chromatin fractions (22), dense chromatin of interphase nuclei (12) and distribution even through out the chromosome set (13). Localization of guinea pig satellite DNA has also been indicated in heterochromatin (23).

The wide distribution of repeated segments of DNA, its persistence through millions of springs of evolution and its speech in RNA language (5,11); it must either be important

for survival of organisms or have vital functions (5). The repetition of very few base sequences gravely limits its potential as a repository for information soecifying the structure of proteins (16). It surmises then that satellite DNA; or what some are structural genes while othor are templates for synthesis of repetitive RNA (23). It may be involved in the assembly of protein (as r-RNA) (ref. 2.), or be a regulatr ofgene action (3) or even serve as a transcrip tional stop (23).

The restricted and high reiterated base sequences of satellite DNA placed at centromeres has been suggested as the molecular basis of chromosome pairing between both homologous and non-homologous chromosome (16). Moreover, the association of satellite DNA with nucleoll and centromers seems related as can be surmised (16) from the not unoften association of centromeres and nucleoli. A role in the assembly of the mitotic spindle can be suggested (16). perhaps by effecting the polymerization of spindle protein or the attachement of the chromosomes to the spindle.

Britten and Kohne (5) have a proposal that satellite DNA may serve for specification of gene products. A resembling hypothesis has been independently put foreward by Sussman (19); every molecule of mRNA, at least in eukaryotic cells has at its 5-'hydroxyl end a set of redundant base sequences. The redundant bases are suggested to serve for the specification of the gene product that the transcribed RNA gets attached to its specific ribosome, to be translated into protein. The model aims at a qualitative and quantitiative regulation of mRNA translation.

The various pointers indicate a key role of "Satellite" DNA, but as to the where abouts of the role, it's as unclear as the beauty and charm of a bud green enough but which would soon blossom into a flower. The clouds are dark and the gust of problems is strong. Still one can treadon, though slowly. in the short timed flashes of lightening. When all does clear up, we are sure to have a bright sunny day, the sky so vivid and the breeze so exhilirating and exotic. Ah! such an occasion would be for all to enjoy. May it be so very early. Amen.

References :

1. Bell E: Nature, 224:326 (1969).
2. Birnsteil M: Ann. Rev. Plant Physiol. 18:25 (1967).
3. Britten RJ and Davidson EH: *ibid*, 165: 349 (1969).
4. Britten RJ and Kohne DE: Science, 161: 529 (1968).
5. Britten RJ and Kohne DE: Sci. Amer. 222:24 (1970), April).
6. Davidson JN and Waymouth C: Biochem. J. 38:39 (1944)
7. Davidson JN and Waymouth C: Nutrition Abs. and Review 14:1 (1944-45).
8. Fan H and Penman S: Science, 168: 135: (1970).
9. Fromson D and Nemer M: Science, 168: 226 (1970).
10. Green BR and Burton H: Science, 168: 981 (1970).
11. Harel J, Hamania N. Tapiero H and Harel L: Biochem. Biophys. Res. Commun. 33:696 (1968).
12. Jones KW: Nature, 225:912 (1970).
13. Maio JJ and Schildkraut KL: J. Mol. Biol. 24:29 (1967).
14. Miescher F. Die histochemischen and physiologischen Arbieten, Leipzig (1897).
15. Nass MMK: Science, 165: 25 (1969).
16. News and Views-Mysterious Satellites (Mol. Biol. Corresp): Nature, 225:899 (1970).
17. Pardue ML and Gall JG: Science, 169: 1356 (1970).
18. Schildraut KL and Maoio JJ; Biochem Biophys. Acta, 161: 76. (1968)

(19) Sussman M: Nature, 225: 1245 (1970).

(20) Walker H and Walker PMB: Nature, 225:915 (1970).

21. Waring M and Britten RJ: Science, 154, 791 (1966).
22. Yasmineh WG and Yunis JJ: Biochem) Biophys. Res. Commun. 35:779 (1969.
23. Yunis JJ and Yasmineh WG: Science 168: 263 (1970).

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Memoirs of a Medico

By

TAHIR HUSSAIN

Final Year M. B., B. S.

THE time is too slow, yet the time is too fast. It is slow as the pain creeping through your body and soul doesn't end anywhere. And simultaneously, it is too fast as an era of life approaches its end, a chapter is about to close down. A period that was so brief and sharp, pinching and perturbing. The ever-haunting memories of this Yum Yum tree, the memories of this haughty magnificent edifice—our dear institution, where the worthy teachers imparted to us the knowledge of human body, of its, diseases and their cures—shall make me linesome, frustrated dismayed and at times crestfallen amidst all the razzle and dazzle of life. Soon shall I bid vale to them all with no hope of return as time never returns.

How much did I feel ecstatic and jubilant the day I entered this magnanimous portal of learning, needs no mention to them who accompanied me, who preceded me or who would succede me. Because all of them are the "Privileged Ones" just as I am. Yet I am. Yet I can't just help pondering over. An academy which opens its portals to a few "Selected ones" only and rules out the over whelming majority, indeed more the admonish than to amuse, is often a cause of some Humanitarian Cardiospasm, though not so quite pathologically. A peep into those days when I was, like many others, striving to leave no stone unturned in embarking upon a new era of life which would set the whole trail of my entire future by attaining some flying colours of success at the I.Sc. Exam. conjures up in my timorous mind an appaling chronicle, Those were the days not only for the lovers of keats but even for those who never read him, to imbibe inspiration from what he has said:

The heights by great men reached and kept,
Were not attined by a sudden flight:
But they while their companions slept,
Were toilong upward in the night;

Consciously or without, we all did put it into practice. Success, however, accured but only to a few. Out of many the toiling mass, just a handfull could get access to D.M.C.—a cherished ambition of the teeming youths. It ought not to have been regretted if only all were treated at par. If justice were dispensated to all and sundry if the results were not rugged, if partisonship were not preferred to parity and dividend to duty. I remember when many were 'relishing' the restless vigils, my own cousin was enjoying the hotness of warm blankets in the cool of cold, bleak nights of mid-winter. I asked him. "Why don't you study? The exams. are over head." Casting a smile, he winked an eye and replied with pride. "Papa has terms with some guys in the office. Why oto worry." so, for him there was not any worry. Money makes the mare go but at whose cost? Some rejoice, others repine who suffers and who succedes? I got the answer only after getting into this medical college. D.M.C. guys, my brethern had not to say. 'Sour are the graps.' Barring a few exceptions. (who, I wonder how could procure admission) all are bourgeois by class and epicrureanists by cast of mind. How could they (including myself) labour with their academic studies that always put them on tenter hooks and thus perpetually at logger heads with them. If they did not labour then how could they place their names in the merit list? Who can solve the conundrum? Perhaps "Papa"s who have "terms with some guys in the office." Atleast I can't. And if I do I am done for and ultimatly done with.

Anamolies, however, didn't vanish at the door-step of Dow. Irregularities dont' recognize any last thereshold. In an unjust and inexorable world vennins have no specific or particular abodes. They are wide spread. At their own disposal 'Hawks' have the whole cosmos while the 'Doves' have not a single refuge. Not Voltaire alone, every candide would say" Do you believe that men have always been liars, cheats, traitors, ingrates, brigands, idiots, thieves, scoundrels, gluttons, drun kards, misers, envious, ambitious, bloody minded, calcumniators debauchees, fanatics, hypocrites and fools, "Let me speak a little truth if not the whole truth or the gospel truth to do a little more than justice to the themes of my choice. As did justice M.R. Kayani—the beacon of truth under the dark ominous clouds, of frustration and falsehood, but, in his own words, more to amuse than to admonish.' Though I don't claim that out of sheer despair or defeat mine is the lone cry of protest, yet it is something that might bare scarcely the crux of our problem—the problems that inveigle our country and our nation as a whole, that reach beyond the limitation of time and space, that made accross the many and varied horizons which we imagine and aspire for as a formidable fortress, secured in which shall have we to fashion our destiny for an honourable place in the comity of nations. And it is the problem of partisanship and injustice, of nepotism and the lack of the sense of values and of responsibility. Above I have said in effect that these evils are wide spread and D. M. C. is no exception. 'Wither D.M.C.'—I would suggest to curtail alarming loss of the Nation's economy in view of how most of us become doctors. Ones thinking flowers out of ones own experience. So is mine. And my experience is that to attain M.B., B.S. degree. Most of us have never needed lectures or lecturers, teachers or teachings, demonstrators or demonstrations, laboratories or lab-activities, clinics or clinicians. What most of us needed most of the times was just to mug certain things by heart, bribe the lab-boys (who would do practicals for us) and then get through in supple or special supple or by some benevolent grace marks. Stripped of the maze of fabrication it is a truth radiant in its clarity as I, myself, have personally gone through these "instalments of success" gradually but ultimately to become doctors. I am embarrased and ashamed over this frank confession. But more than that I am flabberghasted at the nature and extent of an "academic injustice and injudiciousness" meted out to the youth in this way.

This is a portion of my memories relating to my stay in D.M.C., and for that matter, by token of the concurrence of events and conformity of incident and most of all, of the equal participation, it is the memoirs of any other Medico too. Whatever else can heap over this bulk—has a personal reservation not because of any substantial discrepency, for the substance is almost always the same but because it sounds a little different.

Condemned shall I by my own conscience if in the recollection of those unforgetable moments that I spent in D.M.C., which were as refreshing as the auroral breeze and as soothing as some noturnal nepenths, I make no mention of those dear ones who in an ephemeral company gave me an eternal joy—of love, loyalty and friendship. With their eximious company I felt completely entralled. No less bourgeois as they were but by heart proletarians so as to talk of the burning issues of vietnam, Laos combodia and Rhodesia viz-a-viz Washington and Moscow over a hot cup of delicious tea in the cozy, sophisticated interecont. But I mind not, for, not Tolstoy alone, aristocrates the world over have blazed the progressive trail since the last century. Again, a peep into those by gone days enthrills me with the tingling memory of 'some one' when my friends called (103' as a

matter of top-secret. If to think the Freudian style and to talk the way Schopenhaver did, is not obscenity then I would advert without reservation. That some one was my objectified desire of sex—a passionate illusion that I instinctively cherished, a mirage of life that I was consciously enamoured of in the dreary contrast of grim realities not only by token of instinct but also by reason of intellect—a reason that no Immanual Kant would ever justify. And perhaps this is the main theme of my choice and probably all of the above narration is no more than a prelude to this last episode. Because, have not the versatile minds of our preterity—from Socrates to Spinoza, from Bacon to Bertrand Russel and from Emerson to Iqbal affirmed 'Love' to be the most sound and ornamental basis for man kind. All the pillars of ethics would have been tumbled down had there been no love at all. Such a resilient, such a complex such a refined society as have we evolved over cencenturies would have scrumbled to dust had there been no vertiable sentimentality interlinking the wide spread humanity. How-ever, I think that it was a hell for me—who loved. It was a heaven for that 'someone'—who was loved. It was an act of beauty when restless vigils were spent in sombre adoration. It was a fellony of ruthlessness, so ugly, so beastly, when moments were passed in ulter induration, insusceptibility. But how long could any infernal vicissitude of dismay and dejection be sustained. I fell victim to a serenic sang froid which would after amount to emotional vacuity with the exception of debatably neurotic lapses as an occasional tear of compassion for the mentally enmashed as I was.

I have opened the secrets of my diary not for posterity to learn a lesson but to sort out the portion of hell and the portion of heaven in a strange, awful maddening world of "someones" nymphet love—who was to me more than a what Lolita meant to Vladimi Nobakov. The beastly and beautiful merged at one point and it is that borderline I would like to fix and feel I paid to do so ulterly. Why? And specially when it is in the words of Thomas Hood:

No blessed Leissure for love or hope
But only time for grief.

Abartion: *Hollywood appendicitis.*

Adam : .. *The only man in history who never looked at another women.*

Baby : *Mom and Pop Art.*

Baby : .. *An alimentary Canal with a loud voice at one end and no sense of responsibility at the other.*

Bachelor : .. *A rolling stone that has gathered no boss.*

Camel : .. *An animal that looks as if had been put together by a committee.*

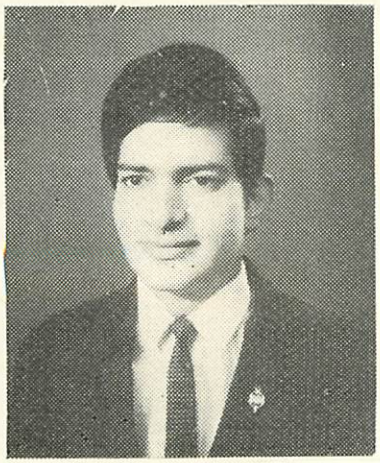
Contraceptive : *A labour saving device.*

Galf : .. *A game where a ball* 1-1/2" *inch in diameter is placed on another ball* 8,000 *miles in diameter. The object is to strike the small ball but not the large one.*

Hollywood : .. *The one place where people live happily and marry ever after.*

Kiss : .. *Something that brings two people so close together, they can't see what's wrong with each other.*

CIGARETTE PUBLICITY



By ASIF SAEED

Final Year M. B., B. S.

RECENTLY there has been a lot said and written about the peril of smoking cigarettes with particular reference to its relationship to the causation of cancer. It has also been amply proved that pulmonary carcinoma is not the only scourge of smokers but conditions like coronary heart and lung diseases, abortion and birth of malformed babies are other likely accompaniments and complications. It is therefore, beyond the shadow of doubt, expedient for the Government to enforce the existing laws in respect of sale of tobacco products to minors and to prohibit smoking in confined public places. Furthermore, it has been recommended time and again that the manufacturers print the words "Health Hazard" on every packet of cigarettes in much the same fashion as it is done in the West. A complete ban of the 'Publicity and Promotion programmes' launched on T.V. and through other media has also been suggested.

Though an active campaigner against smoking I do not agree with the "advertising and publicity" idea in entirely. Leaving aside "Income from Publicity" issue, personally I am very skeptical about the sagacity and efficacy of such total ban.

Paradoxically enough, ridiculous as it may seem, there is no publicity of 'Betel Leaf' or 'Pan' on any of the advertising media yet millions of people are addicted to it. Needless to say it has been found that chewing 'Pan' is a harbinger to the causation of cancer and predisposes to all sorts of mouth and throat cancers as it contains some carcinogenic substances. I also wonder as to the psychological bearing of the words "Health Hazard" on the packets of cigarettes will have on the mind of smokers.

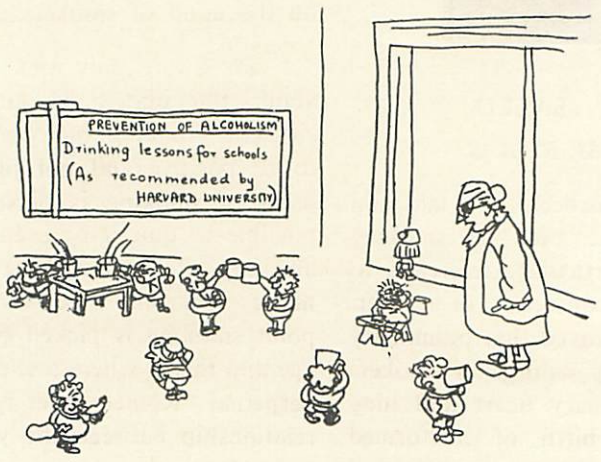
I am aware too and highly consternated about the obnoxious and toxic effects of cigarette smoking but our approach has got to be positive and not pragmatic. Once the habit of smoking is picked it is almost impossible to quit it or even to inhibit the urge and any effort to withdraw manifests "Abstinence Syndrome". Coming precisely to the point smoking is picked generally at a young age and this is where a check can be made and perpetual "Romeo-Juliet type" of catastrophic relationship between the young and cigarettes averted.

One distorted idea is that smoking cigarettes gives young men more poise, dignity, and executive looks. No smoking in company is virtually blasphemy and considered to be asocial and so our good old young man in sheer arrogance and coquetry are allured to, smoking. Many a young man have pre-conceived notions and are imbued with the idea (rather irrational) that women folk can be tantalized by smoking as it brands man as

"more manly". I wonder if the opposite sex will endorse the veracity of the statement.

I deem it extremely necessary and imperative to make a point about imparting regular "Health Education" lessons at secondary school and College level to make young man alive and conscious of their health, and, of course, about the hazards of smoking. Nothing can be more rewarding than holding lectures, symposia and showing films on the subject in question.

Man has been endowed by the Almighty with the faculty to discriminate good from bad and as such, given instructions, will not be attracted or fall prey so easily to mere publicity or will at least think twice before doing the same. He will eschew smoking and abstain like he does from so many other things he sees in the spectrum of publicity which he thinks are harmful, injurious and downright silly. Man would better learn lesson out of "Adam and the fruit" episode. We can not make experience conform to dogma. We must adapt action to experience.



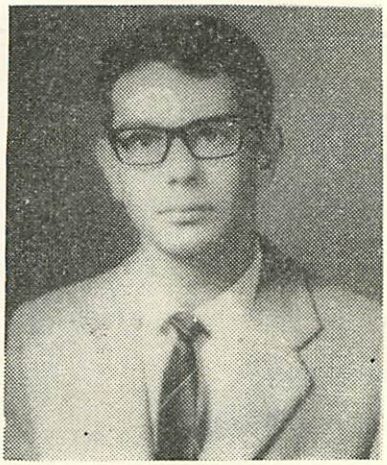
If Willie cannot drink a pint of old ale without getting pickled he won't be ready for hard stuff next term

THE ART OF PLANE HIJACKING

ALWAYS hijack a plane belonging to an airline which employs pretty air-hostesses. (Otherwise the end will not justify the means!).

Then, plan.

Plan the following: attack, offence, retreat, defence, expense, suspense, cast, wardrobe, hair-styles, sound-effects, cinemascope and vistavision.



RAFI RASHID

Final Year M. B. B. S.

(C.R.)

At this stage it would perhaps be out of place to give a short description of the modern-day hijacker. But, what the heck, who cares? We will begin with a general examination, followed by a detailed physical examination from top to bottom, that is, "bottom" if the hijacker happens to be an XX, but "toes" if hijacker happens to be an XY, (with due apologies to all narrow-minded people).

Consider, then, ladies and gents, the modern-day, with it, sock-it-to-me hijacker.

The above mentioned specimen should be broad of shoulder, narrow of waist, keen of eye, quick of hand, quick of foot, conscious, intelligent, co-operative, well-orientated in time and space, no cyanosis, no anaemia, no jaundice, no pigmentation, no brains, all brawn, and ready and willing.

Clothing is essential-especially if the plane is to be hijacked over the North Pole. The clothes worn by the hijacker should be adequate and proper for the occassion. Remember, a neat and well-dressed hijacker always looks impressive. The with-it hijacker would like to look, and indeed, should look impressive, therefore, it follows that he should be neat and well dressed. Q.E.D.

A hat should be worn. It camouflages baldness and also hides the sinister, maniacal expression on the hijacker's ugly face.

An overcoat is an essential part of any self-respecting hijackers wardrobe. In it, that is, in the overcoat (Not the wardrobe, stupid) a number of formidable weapons may be concealed. For example a pistol in the right-hand pocket, a revolver in the left-hand pocket, a shot-gun in the top pocket, a machine-gun in the inner breast-pocket, an assortment of knives swords, spears, hand-grendes and time-bombs here and there, and last of all, a packet of black pepper to throw into the pilot's eyes if all else fails.

Ali set? Right. Let's go.

Hey: Hold it. Hold it.

We almost forgot.

Passport? Visa? A-Form? P-Form? N.O.C.? Currency? Ticket? All in order? Right. Proceed.

Once the hijacker is in the plane, and the plane is in the air, the action may begin.

(To make things more exciting imagine yourself to be in the hijacker's place from this point onwards).

Ring the bell for the air-hostess. When she arrives, smile. Cheese! Ah, that is it. Then ask her to take you to the pilot. When she does so, be a good chap and say hello to him. Be polite, but firm. Tell him, "If you don't fly this plane to Hill Park I'll blow it and everyone in it to smithereens. That's what I'll do. Yes, Sir, that's what I'll do. Yes, Sir, that's just what I'll do."

One thing. Do try to make the message rhyme. It sounds much better that way.

By this time the plane will most probably have landed at your destination, (as per above request).

Now is the time to bid your fond farewells,
Now is the time when you must depart,
Now, when youth and laughter beckon....
(Oops, almost got carried away, back there).

Anyway, get off the plane, take a quick look all around, and then, mister, if you've got any brains at all in that thick skull of yours—RUN LIKE HELL!

HOW'S BUSINESS

CARPENTER: I wooden know".

BOXER: .. .. A bout to improve"

BUTCHER: .. "I have no beef".

PILLOW Manufacturers : .. Dawn last week".

WATCH REPAIRMAN: "I could use a hand".

DISC JOCKEY .. "Real groovy".

OPTICIAN: .. "Looking better".

MUSICIAN : .. "Sounds better"

DISTRICT ATTORNEY:" "Trying".

DRY CLEANER: .. "Spatty".

PRIZEFIGHTER: .. "Sluggish".

VETERINARIAN: "Beastly"

JUDGE: .. "Fine".

RANCHER: .. Bulley".

BELLEY DANCER: "Sheky"

WRECKER: .. "Smashing"

FLORIST: .. "Rosy".

AND SHEPHERD: .. "Baa-a-d".

REMINISCENCES

Dr. BHAGWANDAS SATIANI
M. B., B. S.

CRASH!! The pleasant chatter of the dissection hall died down slowly as everyone looked at Mobed as he ran, the femur thrown at him by Majid barely missing him. Unable to tolerate the kidding any more he grabbed my femuer lying nearby and hurled it at his target, breaking it into a dozen pieces! (He still assures me he will replace it, even if he has to walk on a crutch!) Well, first year had really started with a bang. Soon afterwords, I became involved in what could have turned into one sided affair with a hefty foreigner—all because I refused to stop drumming "Walk—Don't run" with my dissecting foreceps on a basin. But, we quickly settled down at seeing Prof. Wahid coming on his round. Looking at my flowery shirt he said, "which circus do you belong to?" Leaving me absolutely puzzled. On another table he asked one 'smartly" attired gentleman to demonstrate the various actions of the lower limb muscles. The student refused shyly on the grounds that if he attempted to squat, his torn pants would make him a *public* spectacle! An unforgetable moment came when one demonstrator was teaching us the Portal Venous System in the abdomen. We all listened attentively. During questions somebody asked, 'Excuse me, where is the Portal Vein?" The demonstrator calmly looked at what he had drawn and murmured, "It seems I have forgotten to draw it."

Never trust anyone but yourself—was the bitter lesson learnt by quite a few of us appearing for our Histology Practicals in the finals. A rumour reached us about the various slides kept for spotting—allegedly through a reliable source. Against my better judgement I wrote down what I had been told on three slides. I refused to believe the given information on the last two slides as my higher centres rebelled. Nearly everyone had stuck to the information. As it turned out, I only had two slides correct!

Second year 'literally" started with a bang. Some one had kept a fire cracker in a sink at the back of the class. Before it could explode, the demonstrator saw the smoke and failing to find the culprit, turned out the last two benches—including innocent old me! Again, while a lecturer was praising himself unabashedly, one of the quietest and most humble person this side of the equator—Cyrus, couldn't suppress a giggle. It wasn't very loud, but loud enough to be heard by everyone and he was promptly turned out—to the great amusement of the class.

A rumour spread that the new girl with the "copper" coloured hair, dyed her hair regularly. Nobody could confirm the news until Abbas, laid an all round bet and asked her. She seemed irritated and siad "No, it's natural, but what business is....". Abbas didn't wait further, for the possibility of a cracked shell seemed very real!

Mobed made the usually dour Dr. Afaq laugh when he was asked to state the caloric requirements of an average male. Without

a moments hesitation he replied "Ten thousand calories" Dr. Afaq's face registered shock, he laughed and said, "What is this—a bull's requirement?"

Newly introduced to the Surgical wards in Third year, we were asked to name one complication of varicose veins. When it came to the usually absent minded Majid, the question had to be repeated twice. Coolly, he opened his diary, searched for a particular page at leisure and said "periostitis", not paying attention to the vociferous laughter all around! One of the smarter girls was asked in her Hygiene viva as to what she would do after graduation. The answer was brief, "Sit at home". She was asked no further questions—a compliment to her presence of mind.

In fourth year casualty was the scene of a minor mishap. The whole group was crowded around a patient being given Anti Rabic Vaccine. Some one tapped Abbas politely on the shoulder and asked "What's going on? "He turned to see an ordinary looking elderly person and gave him a cool stare. After some time the man again said, "Let me go forwards". Abbas got irritated and told him, "This is no "*tamasha*" and as an after thought added "But, who are you?. "Hearing the reply he pushed everyone out of the way and muttered, "How was I to know, he is the new Administrator!"

One senior student motivated by the desire to do a public service started a collection to to give some new 'mod' first years a hair cut. The amount reached Rs. 25 and two barbers were requested to visit D.M.C. Half the college missed their classes to watch the big event. Fortunately, some sensible elements prevented a physical clash between the seniors and the unwilling customers.

A Professor had given a relevant paper to a student to be read out to the class, while he occupied the last bench. Our class jester entered the class from behind just before attendance, as usual. Unfortunately, he came and sat near the Professor. When he casually glanced around he was shocked to see the Professor staring hard at him. You are right Man, he ran for his life!

We were being taken on a round of the Medical ward and on a certain bed, we were told to listen to a 'Paradoxical Split'. As usual, we were split into many groups—some couldn't hear it, others heard it clearly, still others succeeded in defining the exact area of the split. During all this, a house physician passed by and stopped to listen to the discussion. Then he quietly siad, "The patient with the split is on the next bed!!

While we were posted in E.N.T., Keith decided to have a tonsillectomy. While coming out of the anaesthetic, he spat out some blood. Still groggy, but alarmed he told Mobed, "Call that.... Jafri". Mobed turned to see Jafri standing behind him! Next day, in his senses, Keith was reminded of his language by a sailing Jafri, of course, he apologised profusely!

Finally, here is a real bowler. An irriegular student in Prof: Hayat Zafar's Clinic was asked to elicit the cremasteric reflex. Calmly, he started to bang the scrotum with the hammer. The Professor stopped him just in time!!

The Fallen Hero

By
Dr. DURDANA MOID
M. B., B. S.

SHE was looking out of the window at the rough and angery sea with the waves dashing against the rocks. The scene fitted exactly with the condition of her mind, it depicted the turmoil within her. Her thoughts seemed to come from a distance further than that of the waves which met her eye and would break more mercilessly against the rocks within her. The rocks that she, in view of her position, was forced to accept were far more gigantic and far more herculean than the ones that rose to her view.

Beside her, on the floor was a waste paper basket, full to the brim, but little did she realise its presence or that of her friend who had been watching her. She was lost in her dreamland, her little world, heaven or hell as she would make it.

"Nabila!" the sound startled her. The spell of it all was broken and she was brought back to reality once again. She looked around to find where the voice came from and her bewildered gaze met that of her friend.

"I've been watching you for quite sometime now. What has happened to you Nabila? you look so pale and woe-begone in that pink dress of yours and my God. Your room is littered with appers! You don't seem to have slept well either".

"Oh! how nice of you to have come. I was feeling so lovely and so sad", said Nabila.

"I can understand your feeling of lonliness, but what, makes you feel perturbed?" asked her friend.

"A lot of water has flowed by since I last saw you. It all began on a cool summer evening. While I was strolling in the lawn waiting for tea, I heard a knock at the gate. I turned towards it but halfway through I saw the gatekeeper coming towards me with a blue envelope in his hand.

"It's for you Bibi," he said handing it to me. The unfamiliar writing astonished me and with mixed feelings I carried it hurriedly upto my room where I opened it and went through the contents. At first I failed to apprehend them and read the words over and over again.

Was it real, that paper and those letters? Or was I dreaming a pleasant dream which I would awake and realise as abstract!

Could it be possible that Nadeem had now surrendered to his passions! Nadeem, for whom all hearts craved, had written to me!

Should I believe my eyes? I read it, felt it, held it, till I could bring myself to believe it a reality.

For quite sometime I've been trying to send him a reply, but as you can see, in vain. Colleges will reopen soon and I have to make up my mind before then".

Nadeem was the college favourite: the dark, dashing, debonair, popular not only with girls but also the life of any company he chanced to be in. His reputation as a student equalled his fame as a sprotsman. His gallant figure and chivalry was unchallanged.

Life began to be different with Nabila. She had always admired Nadeem but now she loved him with the felour of a woman's first and early love. She would scarcely breath it to anyone, not even to Nadeem, but there are ways of making it more eloquent than words, such as can be understood and felt but can hardly be brought under the domain of the pen. This growing passion absorbed every moment of hers. She cared little about anything else. When they were together his looks and words occupied her whole attention and when back in her room she would muse silently over all that had passed at their last meeting. His words kept ringing in her ears. With him she saw new beauties in nature and heard the witcheries of romance and poetry. Her attachment to him was like idolatory; she loved him as her hero, her king, her God and felt in his company the keen enthusiasm of an innocent mind awakened to the sunshine of the environment. The days tripped by on rosy wings. Nabila was so blithe with the present that she did not even care to think of the future.

Nadeem's heart had not been rendered too cold and selfish yet despite the chequered life he had lived. He had kindled the dormant sparks lurking in Nabila's bosom but his own had caught fire. His mannerism, when they were together spoke volumes of his impetuous heart. True, he had shown Nabila a different view of life, such as she had never seen before, but he was treading the path with her and for him too, each day seemed to awaken to newer beauties. "To know you is to love you, Nabila" he would say to her, and she would listen to him with a charmed ear and down cast looks of delight.

It is said that happiness is short lived, and so it proved to be for Nabila. The dawn of her life was overcast with black clouds of melancholy. The sunshine of her days vanished and her rainbows of hope yielded mist to the touch. She avoided society and sought solitude where she could brood over the ruins of her past. She bade farewell to love and happiness, wishing she could add memory to them. Memory the word was more bitter than gall. It eccentuated sorrow and desire which rose within her and turned "the past into pain"—pain that graved at her heart until it surpassed agony. She developed a moody and nervous temperament which made her a victim of unfathomable depression.

—Then his thought brought no emotions. He was a dead memory. She looked out of her window again. The curtain lifted and revealed the same stage—only the scene had changed. The sea was calm. She got up and went to her desk. A plain blue envelope was lying there. She sat down and penned her last letter to her fallen hero.

AH! DOLLY

HE died at an age where manhood's morning almost touches the noon and while the shadows still were falling towards the west. He had not passed on life's highway the stone that marks the highest point, but being weary for a moment he lay down, and using his burden (that of oppressed) for a pillow, fell into that dreamless sleep that kisses down his eyelids still. While yet in love with life he passed into silence and pathetic dust. Yet perhaps it may he best, just in the happiest sunniest hour of all the voyage of life, to dash against unseen rock and sink at once. For whether in the mid ocean or among the breakers of farther shore, a wreck at last must mark the end of each and all.

SARFARAZ ALI
Final Year M. B., B. S.

Memory is a way of reviewing the past, the dead. My memories of association with Dolly, extending from the day I met him till the day I saw him off at Karachi Airport when he was leaving for Lahore never to return again, though every hour of which was rich in love and every moment was jewelled with joy, are masked by a tragedy as deep and dark as death can be.

Born in south Africa, a police state, in midst of people who perhaps instinctively felt that they are merely fools in their society of greedy and powerful men who don't really care about human beings, Dolly had an inborn contempt for repression and love for freedom and liberty. Reared in such society his ahhorence for suppressive and repressive forces kept on increasing more and more as he drew more from his already very limited account of time from the bank of life. He had to pay very dearly for his convictions Initially he had to desert his family and finally his homeland for his association with the revolutionary forces.

Love for the oppressed was engraved so deeply in his fibre that even in Pakistan he always directed all his efforts towards amelioration of the poor with whom he had nothing in common yet bound with inseparable bond—an urge to eliminate human sufferings. All during his life fought for the poor, for the exploited and for the abenated. He always talked about values of man and his endeavors. Restoration of human status for every human being was his ideal, his goal and his cause. All his thoughts are reflected unambiguously in the following poem written by him.

No man is, until all others are free,
Since each of us is branch of that tree,
Some hang low while others dangle high,
Carrings their leaves and twigs to sky,
The weak wilt, while stronger one survives
Where in birds build their nests and bees
their hives.
No man is, until all other's are free
Since each of us is mothered by the Sea
We were mere speck of life, with time changed
till we are today, like we are arranged
Food we all need to grow stronger and
healthy
What we donot need is poor nor wealthy.

This poem does not only prove the richness of his thought but also bears an eloquent testimony to his great pen-manship. With his pen he waged his warfare. His pen had the lightness of wind and the power of a thunderbolt. But for the shortage of years he would have lived to be another Frantz Fanon whose book. The wretched of the earth serves as eternally lit beacon of light for oppressed people who are engaged in struggle for emancipation throughout the world. Dolly waged a war of thought against ignorance, the war of reason against prejudice, the war of just against unjust, the war of oppressed against oppressor, the war of kindness, the war of goodness.

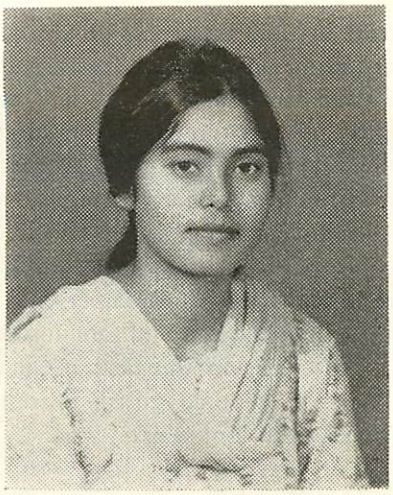
He was a versatile genius with a great mind and unmence heart. This brave and tender man faced every storm of life like oak and rock. But in sunshine he was vine and flower. He was both steel and velvet in one. He was as hard as rock and as soft as drifting fog, who held in his heart and mind the paradox of terrible storm and perfect peace. He had the wrath of a hero and tenderness of a woman.

During his very brief sojourn at Dow Medical College he became friendly with almost every body at college. He had caught the imagination of students. They loved him, they admired him.

To epitonize his epithets I have no epitome. He gained pleasure from other's pleasure, gained satisfaction by satisfying the other. He believed that happiness was the only good reason the only torch, justice the only worship, humanity the only religion and love the only priest. Perhaps there is and there will be no greater man than he was. In the words of Shakespear, "When comes such another."

" A Faded Realization "

By



JEHAN ARA

Final Year M. B., B. S.

THE decades of time has shown that boys have been given special priority and privileges in society, in family, and in the world as a whole.

Parents get radiant with hopes, ambitions, desires and a contentment if they are given a boy rather than a girl. For boys have every advantage, facilities to exist in this world, being devoid of physical or physiological defects as you find in the girls. It has been seen that boys can with stand the stress and strain of hardwork and agonies of adventure better than their opposite sex, the female. Nevertheless, the blessings of Almighty are in favour of boys, they have been created in this world to perform mighty tasks, to conquer the importable and the mystery, for which they have been made as "Shock Proof".

Time immemorial has been the testimony of boys roles in the world. In fact, they are non-susceptible to defect, dismay, disgrace, and dishonour. Obviously, they are blessed with an 'ego' which is the wheel of their superiority. Turn over any page of any book, you at a glance get glimpse that boys are everywhere, they have been great warriers, great scientists, great explorers, great administrators and even a fiction is not complete without them. Not only anatomically, physically and physiologically they differ from girls, but also mind, manners, and appearances. They have a stout built, stoic mind, and an appealling appearance.

Now-a-days the appearances of boys from the top to the bottom are deceptive. An arrogant feeling has been prevailing among boys to acquire the habits, manners, behavours of girls, and appearance too. This is a sad, pity, and a shame on their part to lose their gross appearances which directly or indirectly moulds the inner self, and the days are not far away when every characteristics of boys and manlihood would be faded, and a basketful of their demarctations from girls would be thrown to a distant horizon.

What is the reason behind all this revolution? Time is gone when long hair used to be a decoration piece for girls only—as it gives a womanly appearance to them, but now neck deep hair for boys are counted to be the decoration pieces! Sometimes a flock of these types of boys do go unnoticed among a crowd of girls, for very cleanly, they have a shaven face, would grow hair which half hides their face, from the back you can mistake them for a girl without any warrant. Nearly they have the same robes as the girls wear. The bell botts and elephant botts type pants have taken the place of gent's pants.

Their dresses, no wonder are a symbol of mighty and magic changes taking place exteriorly. But interiorly too, their attitude toward the useless has taken a tremendous degrading path. Glance at the boys from any angle, at once their clumsiness, pathetic

comouflage welcome your eyes. The domineering role in speech, behavour, diplomacy which used to be a part of life in boys, is now a dead and a bygone motto for them.

Give a thought to your subconscious mind, and a trial to your capacity to understand the mystery—though not a mystery, but presently its a real damn mystery to them to apprehend why they have been created a different creature, differing a great deal from their so called the female contemporaries. Well see, since the dawn of this universe Adam and Eve were endowed with different qualifications, and had diverse functions to do. Now boys—you are of the same soul and mind as of Adam who are blessed with strong physique, determined and flowless mind. To numerate the qualifications and to prove them, take the example—that from time immenorial man has been a protector and a benefactor to his wife and children, as a husband and a father. The fathom of mystery in the world has been explored and discovered, the ever proudest and mightiest creations of almighty has been made to bow before, and by whom, the creature like you only.

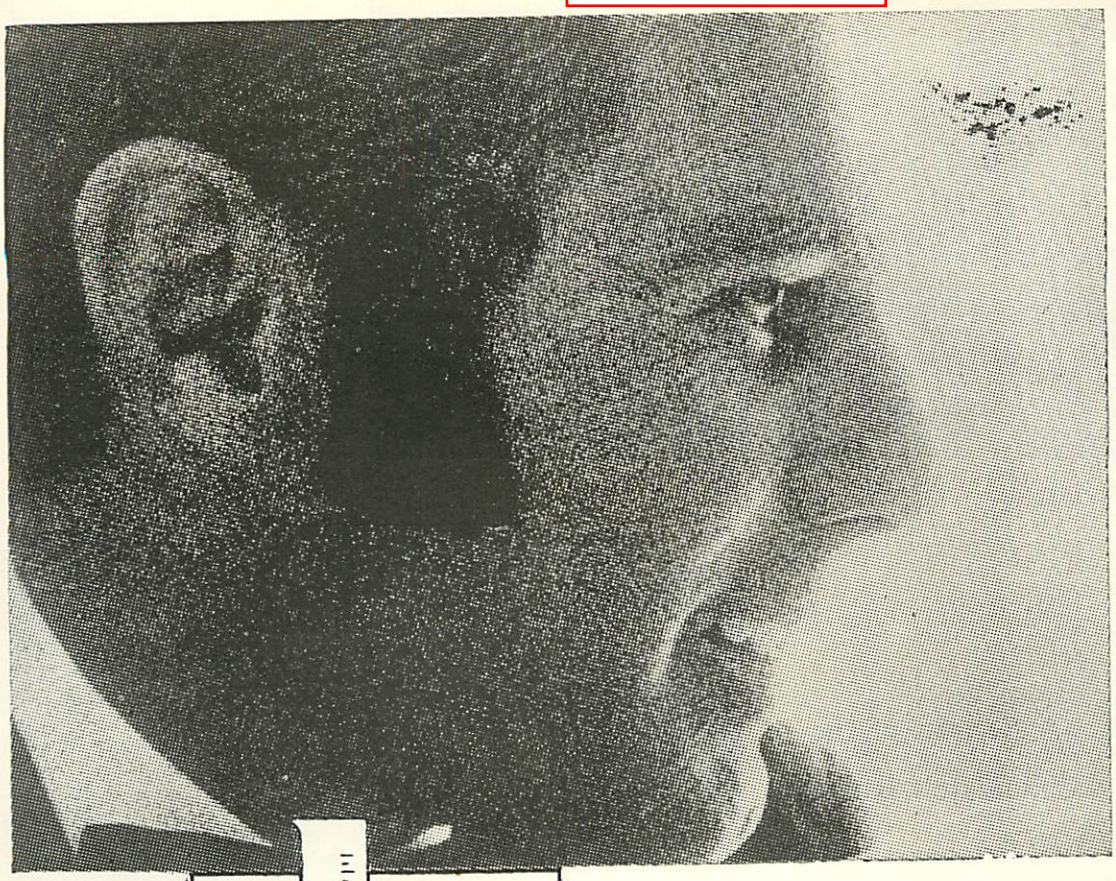
Now boys, why do you want to abandon your such marvellous personalities and dig yourself a painful and repulsive state by indulging into terribly shocking affairs? Just visualize for a moment in what state you are, gradually your mind is drifting into destructive policies, with that you people are becoming a nuisance to the family, to the society, to the world as to say.

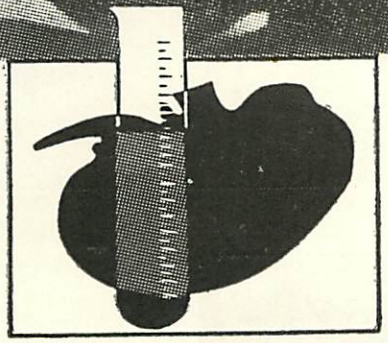
What the joy and happiness do you people get by acquiring the dresses of girls, not only this but your behavoural pattern and axis of every aspect of life is now revolving at girlish and womanly orbit". Not long go the boys had a strong tendency to do something which would demarcate them sharply and in a refined way from the girls like being sportsmen, orators and real good educated persons. But now for the boys the first and foremost lesson left is to specialise in the field of dancing, music, brightly coloured girlish attires, and Oh! my! beautiful long ahirs.

Lets try to allay their grievences and painful sufferings by asking the following questions:—

1. Are they fed up of being boys?
2. Are they afraid to accomplish the tasks and performance for which they have been created?
3. Do they really want to modify themselves, expected to be tender and loved as females?

If the conscious of these boys they say belong to neither of the above mentioned categories, then its better to exhibit themself as manly. "At least for Communities, Sake Don't be Girlish and Womenly".





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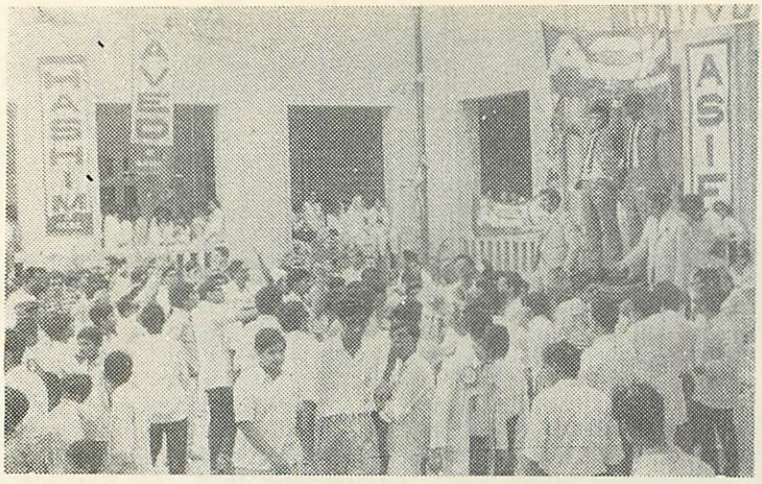

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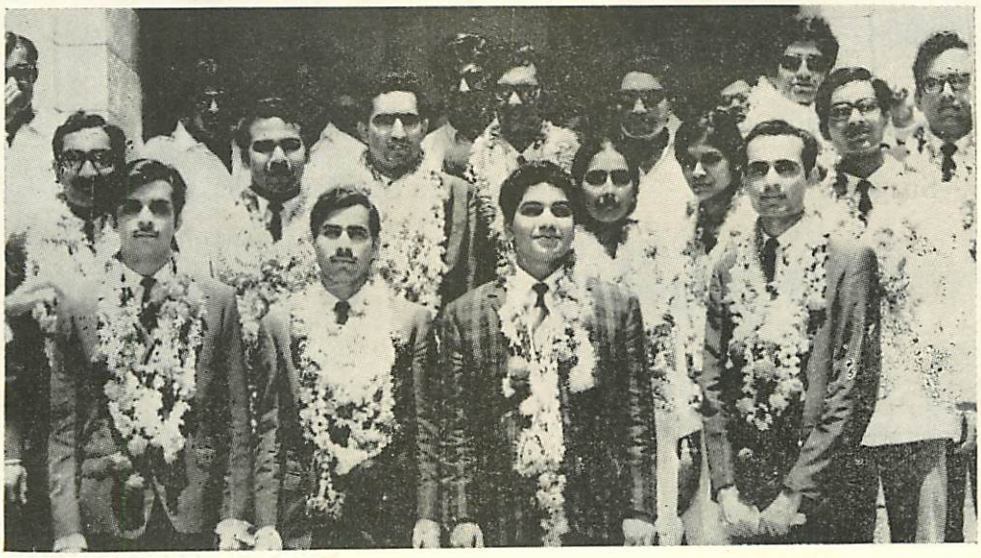
A Section of the
Candidate's banners

Pre Election Stages

Newly Elected Cabinate takes the Oath

ELECTIONS



The New, Happy, Victorious, Garlended, Silver Jubilee Batch of D. M. C. S. U. Cabinate

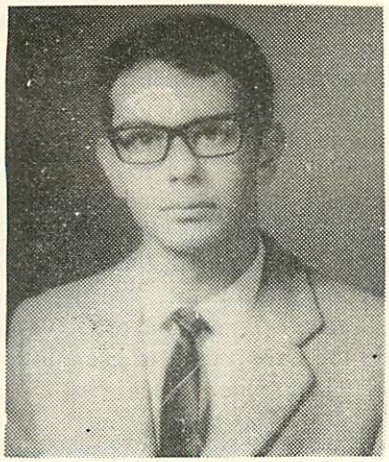
Final Year Medicos
in
Mental Hospital
(Not as Patients,but!

Demonstration class
by
Surgeon Shirazi

Eat and Play

Medios away from
College.....Picnicing
at the Sea Shore

THE MESSAGE



By

RAFI RASHID

(*Class Rep.*)

Final Year M. B. B. S.

THE fortune teller told him, "Today is very important for you. Within the next two hours you will get a message or meet someone who will change your whole way of life overnight." The session ended. He paid the fortune teller and left.

"What nonsense," he though to himself as he drove towards his club, "What utter nonsense". Who can I possibly meet? who can change my way of life overnight? And, how can the change be made? And anyway, what is there to change? I am an ordinary man. Neither genuine nor fool, neither rich nor poor. Not a leader, nor politician, nor do-gooder, nor gangster. I'm not a religious fanatic, nor is religion my strong point, but I'm not an atheist either. I'm not an extremist of any sort, but on the other hand neither am I a follow-the-leader-sheep. I'm nothing extraordinary. Just ordinary Just very, very ordinary, I'm Me. And that's the way I like it. "So nuts to you Mister Fortune teller, "I don't want any changes."

He reached his club. He parked his car, locked it and then entered the club, looking forward to a few rubbers of bridge with his friends and to his daily limit of two small pegs of whisky.

His friends, however, had not yet arrived. So taking the evening newspaper he settled down in an armchair to while away the time.

"Excuse me, Sir,".

It was a waiter. A new waiter, apparently one he had never seen before.

"Yes"?

"A message for you, Sir,". The waiter handed him a folded sheet of paper on a tray.

He opened it. It was blank.

"Waiter," he said, in a surprised tone of voice.

"Sir?" said the waiter.

"What's the idea?. Is this some kind of a joke?"

"Joke, Sir", said the waiter, slightly lifting his eyebrows.

"Yes, damn it, joke," he said sharply showing the blank paper to the waiter.

"I do not understand you, Sir, I believe you were told to expect this message. And also," the waiter paused, "to expect me.".

"What the dickens do you mean by that? Who are you? What's your name? I shall report you to the management".

The waiter regarded him quietly for a few moments and then said in a soft but plainly audible voice "My name , Sir, is Death. I have come for you."

Suddenly he felt icy-cold. Soon afterwards everything became black foreever.

"CONFESSIONS OF A DEFEATED SOUL"

ANONYMOUS

THE pillar beside which I stood was as firm as a rock. My hand that clutched it was now numb and cold, all sensations had cased to exist there. I stood, in that lonely spot, I know not for how long a time, a cold bitter feeling creeping from my feet, towards my benumbed senses, and the glorious sunset in the western sky was lost to me. To enjoy so blessed a moment, was forever gone, I knew not when and how I would gather up my scattered wits again and come to live in my present world.

My present world, how cruel and ghostly it seemed now. Gone were those happy care-free days, when I had no responsibility, I had no duties—nothing, I was happy—deliriously happy, I had never even dreamt in my wildest dreams, that it took just a few moments for happiness to be snatched away from someones world. Something beside me whispired, "But Eulek surely you are not going to spoil your so well planned life for the sake of a single person. After all there are plenty of other people to love and admire you. Why don't you start afresh, your entire life lies ahead of you, you are now free, free to choose anything."

Free!!!—for what? Why?—for whom, the word itself stung me like bitter frost, and I could not but help my suppressed tears flow freely. How long can they be held anyway, I consoled myself, after all they too had a right to flow as they wished.

"Eulek—I still love you, I do," the sentence was still lingering in my ears, and incessantly, drumming there making me go crazy with apprehension. You do love me but you cannot marry me isn't that so."

I am sorry but you know what circumstances are." Of course I know what uncircumstances are.

The conversation that I had, had an hour ago was still vivid in my mind, O'God, I found myself muttering did you bring me back to life, when I was so near to death for this day, this very day, when someone I had learnt to admire and worship from the depths of my heart, would refuse to acknowledge my so sinere devotions. Did you—I would not help complaining—I had to complain. After all how much happiness had I been given in the past, that now the only real and true happiness I had acquired, that too was being, snatched away from me, cruelly, unmercifully. Surely, I too am one of God's subjects and I do too have a right to live a little if not much of a happy life.

Slowly, but very slowly, I retraced my steps back to my room, and stamped down on my bed. The hot musty air inside made me feel more nauseating and the pain in my chest became so unbearable that instructively I had to raise myhand there to ease it, but of course, it refused stubbornly to be eased.

Try as I would to calm my mind, it would not—the turmoil and torture inside was gradually eating me and draining out all my energy and vitality. All my past memories came back, flooding, and increasing the pain, and I felt myself sunk down, deep down, I knew not where. Honey I love you" I repeated over and over again but there was no one to reassure me, there was no one to console me, there was no one to contradict the words which would not give me peace ever for a moment.

I still remember that black unhappy day when with swollen eyes I had come down to lunch and you had stared at me with me an immensely hurting look. Perhaps it pained you more to realise that my result was not as was expected, surely dear, you haven't forfotten that moment or have you. Later how much you tried to console me, how much you tried to make me laugh again with out feeling much hurt about it, and how you blamed others for it instead of me.

Then finally one day, when you surprised me, by writing to me things that had made

my face radient with joy, and my eyes sparkle like the stars. I still remember the haunting melodious endearments you whispered to me when we were alone. There was no one to disturb us, there was no one to frighten us, the peace, serenity, nature, everything co-operated, and all of a sudden everything had become enchanting in front of my eyes. Even the dreasiest hours used to flash away, I knew not how, there were no more long tedious evenings, no more melancholy hours, no tears at night, and I felt as if God had placed me in Paradise.

O' God, how I wish I knew then that the universe is not stable, it moves along with the time and along with it nothing in it lasts. No—not even the highest of high hopes, and the most glorious moments which time after time come to an individual to make ones life bearable in this detes table earth of ours.

There is now nothing else left for me to do, nothing at all, except to study, do well, brighten up my future and stand on my own feet, and show the world that money and family is not everything, and that a boy's "No" is not the end of the world in fact it is just the begining.

My unconscious self shivered a little, not with cold or with fear, but with courage, for a new resolution was slowly awaking inside me, and igniting a huge flame. A flame that seemed to come from eternity to light my way and guide me along the correct path. I know I have made mistakes in the past, plenty, there is no doubt about that, but then human beings are all mortals, they are not born perfect, they make mistakes and through mistakes and errors they learn gradually but steadily, for life itself is nothing but a journey through errors and trials. A baby, when learning to walk, falls one thousand and one times, but in the end after countless efforts he succeeds, Like the baby perhaps, the same case is with me. I have failed my guardians, literally dissapointed them in every way, in way, in every action, but perhaps, that day too isn't much far when one day, they can proudly say, "she is ours."

It hurts plenty, oh ever so much, to think of the mistakes I made, and branded myself with them. For this I can only ask my near & dear ones to forgive me, to forget the past, to give me another chance, to prove to them that I am not what I seem to be now. And while I make this solemn resolution I also beg God to help me, for without his help everyone is helpless and I am no exception.

I loved a person, and destroyed myself, perhaps it is the truth and I am not ashamed to own it but since love has been extinguished from inside me forever like a dying fire, I shall now pick myself up from where I left, and prove to you that I am capable, and I do too have a right to live as happily as the rest of the people do, even though God has not made me that fortunate and has not supplied me with luxuries as he has supplied to His other subjects.

And sometimes now when I sit alone and in utter loneliness, I wonder, whether love destroys a person, or whether love endows life in an individual but I have never been able to answer this complicated question of mine in the most satistying manner. For I know people to believe that love is a mortal sin, and again if it is a sin, such an unforgiveable sin then how is it that God, the supreme creator of mankind ever gave a man and a woman the permission to marry each other, and on the other hand if love is not a sin, then how come society looks down upon it ever so disdainfully and such have always been my arguments.

Nevertheless, when now I hear and listen to the most glorious thing which is nothing but 'love' I get absolutely bewildered and perplexed. For sometimes love is the seventh heaven which knows just happiness and sheer delight. It is something exquisitive with no faults, or follies for it is like an angel living with God'. Yet, at other times, and for other individuals it is tears, agony, heartache sufferings and cruel tantalizing remarks.

Which exact thing does love denote, I wonder still, for I know its neither of these that lasts—for the universe itself is not stable, and in it every thing moves, specially the mind of its male species, who are supposed to be Gods choicest subjects, here, and to whom, he has given the greatest of all advantages' among all his creations.

"ON TEARS"

AZRA RAZA

2nd Year M. B., B. S.

THE hydraulic force through which masculine will power is defeated by feminine water power has been called tears. Woman has been notorious for this revolting practice of "getting what she wants" by a slight stimulation of her tear glands.

Apart from being adept at evasion and sophistry, a woman's most accepted jewel is this feasibility of fluttering her eyes and squeezing out tears at the right moment. You can despise a woman, hate her enough to risk the electric chair, subject her to calumny, obloquey and defamation. But let a single drop of transparent liquid be reflected through her eyes and you will proscribe and condemn all your former accusations!!

To be a woman is something so strange, so confused, so complicated that only a woman could put up with it. Yet, it is a man I pity, because what he has to put up with is not only this capricious vagary of imagination, but also all additional burden of ever-ready, unabated fountain of salt water which threatens continously to drown him, "head, hands and heart!"

In old days, it was Cleopatra's tears that brought Mark Anthony to his doom and it was Juliet's tearstained face that landed the tragedy on Romeo. Later, it were Anne Boleyn's tearful eyes that made her Henry The Eight's second wife and Jane Seymore's tears that made her his third bride. Lastly it was in Laila's tears that Majnoon found his sanctuary. But the most enthusiastic approval given to this "eternal fountain of double meaning conquetry" came from the Almighty himself, who found Eve's reservoir of this tricky fluid to be too much for his liking. Thus I call Adam, the greatest mug to go in the fruit business in heaven; and Eve, the first and greatest lady to "tear" her way out to this earth. And you can quote me!

But times change, and so have the techniques of our girls changed with time. How

they are employing this advantage in a more subtle and fastidions manner.

Lately, their tears have proved to be the cause of social, cultural, psychological and even moral collapse of the opposite sex. Facts present the most grotesque and in human image of a man who is reduced to a mere burden by this delicate wife who happens to be adept at the art of crying on the right time.

Socially he is equivalent to a servant, or a slave, who is toyed in the clutches, sighs and tricks of his "tearful Cleopatra." Economically he has reached the pinnacle of inflation, bankruptcy and dilapidation by trying to fullfill the multifarious demands of his "ideal" whose tears he cannot see.

Women do not realize that their tears make men unmanly, their desires become effeminate, their weapons, fraud, cunning and forgery. To impress a man, and get what you want by this evil practice of crying kills his ego. He then receedes to ferocity with the result that mentally ill-balanced and mal-adjusted men are seen to show limits of degradation by whistling at girls and pushing and jostling women on roads. It is not out of joy or hilarity, but a result of their frustrated and curbed desires to fullfill some denand of their women. Thus indirectly all this leads back to the old tale of woman's tears!

Confucious once said that one of the worlds great misfortune is a man of lax morals, but its greatest liability is a women with an abundant supply of tears.

When a girl cannot fight for her cause, she tries to tear her way out. To dissuade out of such a tearful parodox, aunscattered and unharmed, should be considered a man's greatest triumph and the reverse his sure perdition. The more such a male gloats over his enormous triumph, valorous deed and Herculine task, the more I hold him capable of acknowledging my plaudits and warm applause.

No eloquence, no flattery, no palaver can soothe a crying female lest it be what she started on the beguiling manoeuvour of crying. Even though I am a women, I have all my sympathies with the males of our species. I am sure, reader, you have heard that to err is human. What I think is yes, to err is human, but to really foul things up requires a tearful woman.

She Was The Sort of C u t i e this like over look you

"A PAGE OUT OF MY DIARY"

By

QUMERUNNISA KHALEUQ

2st Year M.B.,B.S.,

Dear Diary,

THE other day, I saw the most heart rendering scene in the Bohri Bazaar. I simply do not have words to describe it to you, as to what my feelings were then.

What exactly was the scene. You see I was in one of those big departmental stores, buying some miscellaneous things. After I had finished with that job, I sat at a corner waiting for my car. Finally, after a long wait, when my patience had nearly exhausted, all of a sudden I looked up, and saw one of the most rare scenes of nature. I saw a girl coming towards me along with her elder brother. She was perhaps 4 years or less, but she was, walking ever so confidently, and her brother 2 years older, perhaps was trailing behind—very protectingly indeed.

The brother whom I shall call Tutul, bought some thing not costing more than 25 paisas. The sister, I shall call Rana, in the meantime had started to room about in the entire shop. Having nothing else to do, and feeling absolutely bored, I intently gazed at Rana for a long time.

Her complexion was fair as the new sheves of corn which are picked just at the first season. She had on a dirty, filthy pajama, with a tatered mini shirt, and a cute dupatta. Very innocently with a finger in her mouth, she was walking about in the entire store, and gazing at all the candy jars with eyes full of longing. In the bright light of the store, her complexion had changed into something delicate and exquisite, something like the scene when the sun starts gradually to rise early in the morning; the crimson colour of her checks was so marked.

Gazing thus at her, I wondered, as to why is it, that God is not so generous, where giving of beauty is concerned with the rich as well. I had always noticed that it was usually the poor who are born as a charming delicate flower, and the rich as something drab and melonchioly. But then of course God has His own reasons. Since he could not give beauty and wealth to the same person, he distributed it equally, among all his subjects.

Suddenly, with a jerk I was awakened from my dream by Tutul's voice. He had come to the corner where Rana was standing, and catching hold of her arm said, "Rana *ghar chalo*". (Rana lets go home).

Her finger still in her mouth, she stared at the rows and rows of candy jars, and not in words, but in gestures, told Tutul that she wanted one of those. Seeing her thus I was quite amused, her childish face so innocent and pretty made me realise all of a sudden, the very greatness of her creator, and I gazed at her more intently, trying my utmost to catch the words her brother was saying to her.

All of a sudden I glanced at Tutul, the expression on his face had changed, something uncertain and disappointed was evident there; again Rana said but now in words, "*Bhaiyya*, I want those". Saying this she smiled, and her face got absolutely transformed; something

angelie appeared there, pleading yet at the same time, confident, that her wish would be granted. The expression there was so divine and so sweet, it at once reminded me of a scene I had in "Heidi" a book by, Johoanna Spyri Describing a sunrise early in the morning on the snow capped Alps, he says, "The peaks of the hills started to blaze, into a glorious fire, when the golden threads fell on it slantingly". Rana's dimples were so prominent now that she smiled, I could at once visulaise why "Heidi" had employed so lovely a scene.

Tutul again woefully looked at Rana, and with sad melancholy eyes said, "Rana I have no money". Rana, seemed did not understand precisely, what was money, for her face showed complete, ignorance in understanding that vital word. She remain this time more stubbornly said, "Bhaiyya I want, that, pointing directly towards the sweets.

Tutal at a loss as what to do, looked away from her face. The pleadings too in Rana's eyes were, perhaps unbearable, "Rana," he said again ever so gently, "when I grow up, and earn huge amount of money—I shall buy for you all those sweets."

Rana—now more stubborn than ever before, refused to understand, and again pointed towards the sweets and said, "Bhaiyya, I want those sweets."

Tutal seeing no way to make her understand, caught her firmly by the arm and started to drag her out. Rana gave a loud shrick and made the entire store vibrate with her pleas. Inspite of it, Tutal went on dragging her, but her feet were firmly planted there and would not even budge a few steps.

From her eyes now, a continuous stream of water had started to flow and I was astonished to see so much salty water in the eyes of one so young. Her two plump cheeks had now become more red, and her wails more pitiable —the brother young too, and unable to understand his sisters emotions, caught his dear sister by the shoulders and he too burst out crying, he, because he could not buy for his so adoerable sister her most cherised thing and she, because, no one was buying those delicious things for her.

In between his tears too, he tried to make his sister understand, that if he could, he would have bought her not just one sweet, but as many as she wanted, but it was all in vain—Rana with her innocent lovable endearments did not understand.

Watching this scene form a few yards away, I got so engrossed in it, that I was absolutely oblivious of everything else. The shopkeeper was so engrossed, with the other customers that he failed to notice this episode.

At last when I woke from my stupor, I went towards Tutal and Rana. Catching her hand in mine I asked her, "Rana which sweets do you want." At first she could not understand me, and was a bit afraid, but when I asked for the 4th time, she pointed towards one of the jars. I took a whole packet, and handed it do her.

She extended her small chubby hands, and took the packet from me—ever so gladly. After that her eyes too dried, and the immense sea of water she was shedding stopped; Tutal looked gratefully towards me and his eyes seemed to convey his sincerest thanks, though his mouth did not utter a word.

Then hand in hand both the brother and sister left the store, the sister radient with happiness and the brother unable to express his thanks to a stranger, who had made his dear sister so very happy.

After they hand gone, I stood there for a long time rooted to the spot, my head full of strange spectacle that I had witnessed. The great love and understanding that a brother reserved for his sister I could fathom, just that day, for having no brother or sister of my own, I had always remained ignorant where this type of love and understanding was concerned:

A brother—is there more sweet word existing—I don't think so. The most desirable relation which exists in God's universe for after parents love—a brother's protection is the only weapon which can exist without my misunderstanding. But then parents too do not stay during our entire journey through life—sooner or later they abandon us as age proceeds on, it is the brother only who accompanies us through thick and thin and finally to our eternal bed.