

Questar Questar

Questar Questar

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COVER

NATURE has generously provided us with a lovely array of colours each holding in itself a meaning, each conveying a feeling, a thought, and emotion.

Blue has been used as a basic colour. It signifies the everlasting and eternal strife of man for peace and tranquillity in the universe which is only attained through knowledge and wisdom. Gold indicates glory, supremacy. It has been used to reflect the greatness inherent in the creation of the universe—The golden arches above, represent the heavens, brooding over the earth reflected by the golden arches below. Between the arches is the book of learning. The lips and eyes are part of God's creation—MAN—The Red represents the fire, emotion, love, resolution, and energy coming through blood in our unending 'QUEST'; and this is guided by the stars twinkling through the golden arches, These heavenly bodies are like torch showing man the way through a deep dark realm of ignorance.



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OZZIR ZUBY

Born on 28th August 1922 in Lahore.

Mr. Zuby started his career as an artist in 1941, and graduated in Arts, from Islamia College Lahore, in 1942.

In 1947, he started a series of sculptures of 'Man of letters' (for National gallery). He has had the privilege of having Fatima Jinnah as his model, amongst many famous people.

In 1950, he proceeded to Italy on a scholarship for higher studies, and subsequently became a lecturer at I.S.M.F.O., in Italy and it was here that he became the first man to compile Urdu to Italian and Italian to Urdu Dictionary.

He is the Founder Principal of Central Institute of Arts and Crafts (P.A.C.).

In 1968, he established the School of Decor, which started functioning in 1970, and is the only school of its kind in whole of Asia, excluding Japan.

One of his most memorable painting is the mural of 6th September, 'The Awakening.' A much acclaimed and appreciated by all. Its size is 22'x6'. It also hold a unique distinction of being copied during the painters life time by a person called "Hafiz Sahib." In 1942, long before the calligraphy was in vogue, he did a calligraphy called Khat-e-Zuby.

QUESTAR

QUESTAR! The word is a combination of the words 'quest' and 'star'. This name has been chosen for our magazine as an ideal befitting one, since it is being presented by students of an institution where learning and knowledge are constantly pursued like stars of a constellation.

Our quest of knowledge is not limited to medicine alone but to all the fields that are related to human life. Whatever we gain in this institution academically or otherwise, we have endeavoured to present through 'Questar', and this in a way is an epitome of our quest. We hope to bring to our readers through its pages the sum total of our experiences, hopes and ambitions even our failures. It is failures that instigate us to strive towards penetrating this bright and brilliant galaxy. We hope that Questar will continue to guide us and remind us of our aim through the coming years.

It is a torch bearer in our quest for new horizons and frontiers, and the stars are really the final frontiers of the Universe. Ameen.

Father of the Nation

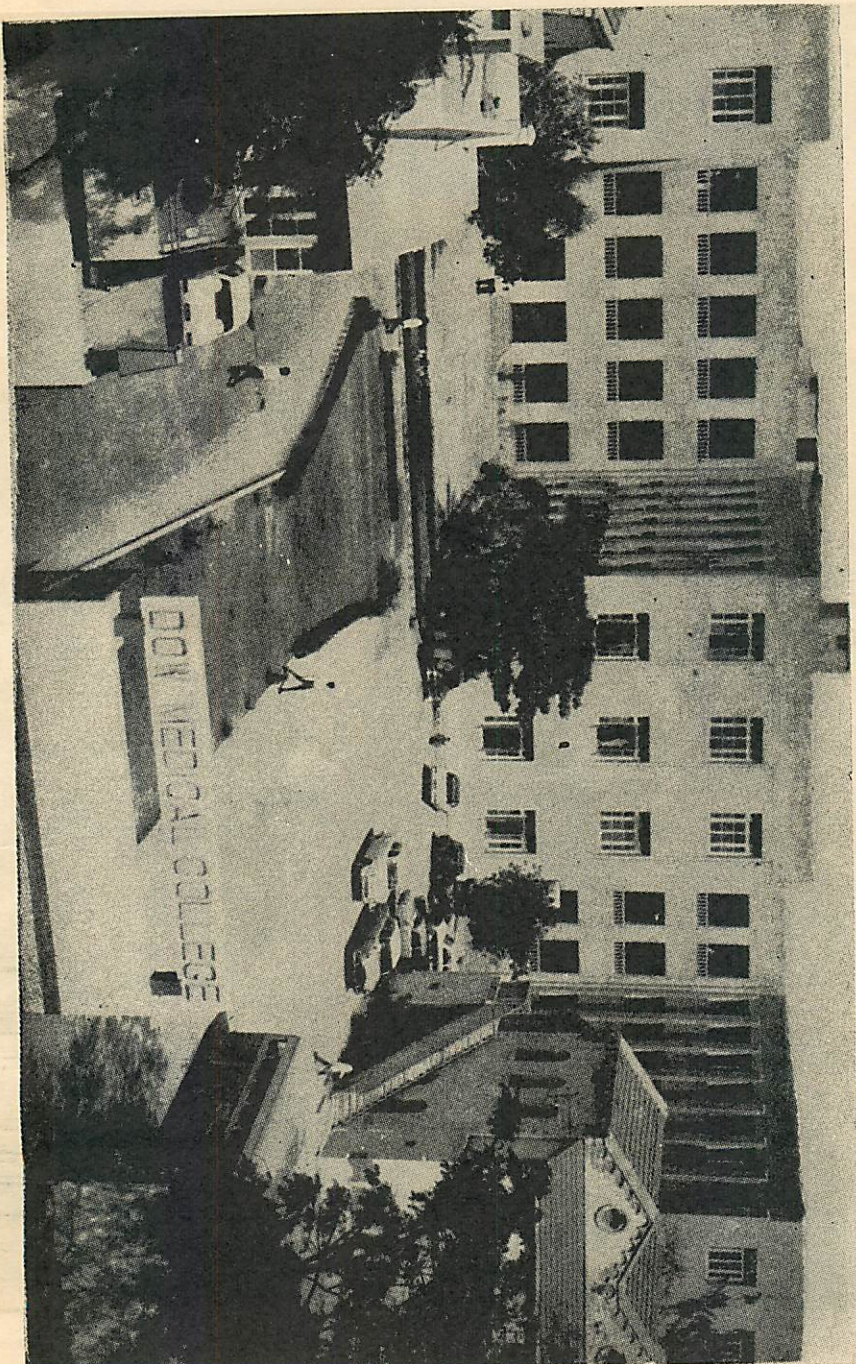


Quaid-e-Azam Mohammad Ali Jinnah

My young friends, I look forward to you as the real makers of Pakistan, do not be exploited and do not be misled. Create amongst yourselves complete unity and solidarity. Set an example of what youth can do. Your main occupation should be—in fairness to yourself, in fairness to your parents, in fairness to the State—to devote your attention to your studies. If you fritter away your energies now, you will always regret energies.

Quaid-e-Azam

Dow Medical College



Administrator



Prof. Abdul Waheed

Message

I am very pleased to know that the students of Dow Medical College are publishing a Magazine. It is a very noble effort.

The Medical students of today will become the doctors of tomorrow and as such will have to shoulder the heavy burden of responsibility which society places on them. They need to prepare themselves for their future role by utilizing their initiative, energy and devotion in the pursuance of constructive ideas. The students should apply themselves diligently to their studies to make a success of their career.

Capt. USMAN ALI G. ISANI
TQA., CSP.,
Secretary Education.

Message

I am very happy to note that the Young Medicos' Organization has been actively participating in medical and social activities directed towards national welfare through blood donation campaigns, small-pox vaccination, film shows on hygiene and adoption of preventive measures in the over-crowded and slum areas of Karachi. It is, no doubt, areas like these that require personal attention and tending and they should be made to feel that their rights as the citizens of a free country have not been forgotten. The Organization's task of compiling and distributing free notes on medical topics to medical students is also equally commendable. I hope all these efforts by the Organisation will lead to a more active participation by fresh medical graduates in the public sector, where the monetary rewards may be less but dedication may lead to far-reaching results.

I wish the first Annual Magazine of the Young Medicos' Organization Godspeed and I hope that the publication of this Magazine will become a regular annual feature, as we, in Pakistan are so chronically short of scientific publications.

I.H. USMANI

*Chairman, Pakistan Atomic
Energy Commission.*

Message

Mr. Ali Hassan, President of the Y.M.O., has requested me for a message for this maiden issue of the Y.M.O. Magazine and I am happy to record the following:—

I am reminded of a saying, attributed to that great French physician, Laennec, who devised the stethoscope and described Laennec's Cirrhosis, "Do not fear to repeat what has been said already; people need these things dinned into their ears many times and from all sides. The first attempt makes them prick their ears, the second registers and the third enters". Encouraged by this time-honoured saying I shall repeat this oft-repeated message with prayers that it may have the desired effect.

The student community in general and the medicos in particular often complain of the hard days being faced by them. Let me tell you my young friends there is no such thing as hard days or soft days. What really matters is your own grit and fibre. If they are hard the days turn soft but if they are soft the days become otherwise.

To succeed in life you must have some aims and objects and also the will and determination to pursue and achieve them. Even God Almighty helps those who help themselves. Nothing will help those to succeed who are not on firm ground or sound footing. As students your primary aim is to complete your studies and nothing should come in your way to pursue them diligently and conscientiously. Remember my young friends the door to success is always labled "*Push*". To succeed you have to push it open by dint of *hard* work and *fair* not foul means. But, for God sake, do not *bang* it open for a head-on and disasterous collision.

There is a saying that every time a sheep bleats it loses a mouthful of hay. Every time you complain of your lot you are asking for trouble. That, however, should not deter you from fighting for your *genuine* rights. But your struggle should always be as *dignified* as it befits the *noble* profession you have chosen to pursue.

So, courage my young friends; march ahead and stumble not but trust in God and do the right. You have my sympathies you have my prayers. May God in His mercy bless you all.

Mazhar-ul-Haque

Our Patron



Professor Shauket Ali Syed.

Message

I take this opportunity as Patron of the Young Medicos' Organisation to congratulate its Members for their commendable work during the past year.

The Organisation successfully brought out several Medical Publications to be distributed free among the Medical Students. The Organisation was equally successful in arranging the vaccination programme in rural areas. In times of need the Members of the Organisation effectively rendered their services to the E.N.T. Department of the Civil Hospital.

The Young Medicos' Organisation deserves our gratitude for their fine work. I would like especially to record my appreciation for Mr. Ali Hassan, The President of the Organisation who has worked hard to achieve the noble aims.

This Publication highlights the past activities of the Organisation and gives their future programme.

I wish Mr. Ali Hassan and the Young Medicos' Organisation all the success in their sincere endeavours.

2nd September, 1971.

Lt. Col. SHAUKET ALI SYED
S.K.,T.I., F.R.C.P., F.I.C.A., F.A.C.C.
Executive Director,
Institute of Cardiovascular Diseases (Pakistan),
Karachi.

Professor Shauket Ali Syed

*S.K., T.I., F.C.P.S., F.A.C.C., F.R.C.P. (Ed.)
Executive Director, National Institute of Cardiovascular Diseases, Karachi.
Head of Deptt. of Cardiology, J.P.M.C.,
Principal Investigator, Cardiovascular Disease and Research Project.*

Professor Shaukat Ali Syed, was born in January 1922 in Lahore, Punjab, from where he obtained his early education, and subsequently graduated from King Edward Medical College, Lahore, with the class of 1944.

He was commissioned as an officer in 1945.

He proceeded to U.K., and U.S.A., for advanced training in his chosen field of Cardiology.

He obtained his membership in 1952 from Edinburgh, and was elected as a Fellow to the Royal College of Physicians in 1965. In 1968, Prof. Syed was honoured with F.C.P.S.

In 1969, he was awarded a Gold Medal by the Pakistan Cardiac Society for his meritorious work in the field of Cardiology.

He also lead a delegation to the World Cardiac Conference, where he read his original paper on "Blood Pressure Analysis".

Since 1964, he has been the Head of Deptt. of Cardiology J.P.M.C.

Prof. Syed is the Executive Director, of the National Institute of Cardiovascular Diseases, the first of its kind in Pakistan and whole of Asia excluding Japan.

A Report

AT a time, when all the college activities came to a standstill, the Young Medico's Organization saw it fit to take on itself the added responsibilities and carry on from where the Dow Medical College Students Union had left in addition to its own programme.

We have as far as it is humanly possible tried to solve the problems of the students and extended our services to all the students who needed help. We do not boast that we have solved all the problems faced by the students, but atleast we have made efforts through peaceful means to achieve the goals which represent our ambitions, and feel that we have been successful to a great extent, on which I shall elaborate later.

PUBLICATIONS:

As it is a established tradition of the Young Medico's, the publication section has been in full swing, and we have this year published notes on the various medical topics. This year, we have added to the already comprehensive notes on pharmacology, a complete dosage chart. Embryology, Surface Anatomy, Angiology, and Foramina charts have also been distributed free of cost to All the students.

PROBLEMS OF THE STUDENTS:

In this context, the Young Medico's have been very active and many a time we have made representations about the problems faced by the students. At various times the Governor of Sind and the Vice-Chancellor of Karachi University have been apprised of the difficulties faced by the students and the most notable is the disparity of standards between Liaquat Medical College and this College.

One of the most disconcerting fact about medical education in the Pakistan was that it has become a fashion to give a hundred percent choice in the examina-

tions to all the colleges except Dow. We felt that this was one of the major contributing factor to the fall of standards. Thus we sought and achieved the abolition of the choice at Liaquat Medical College. We take this opportunity to request the other medical colleges to follow the example and help in improving the standards. In the same meeting the Governor of Sind also ordered that Pakistan Medical Council rules should be strictly adhered, and which we welcome.

FAILURE STUDENTS :

The change in the course, in that the subject of Pathology shall be examined in Fourth year instead of Third has left a number of students stranded and we urge Pakistan Medical Council to quickly finalise a decision in the favour of the students so that they may be promoted to the next class, as they will have a chance to appear with the fourth year examinees, and in this way shall not loose one year.

GRANT IN AID FOR THE LENDING LIBRARY:

The Lending Library is for the students benefit, but it has not got enough books to serve all of the 1200 students of Dow. Owing to the Cash-cum-bonus scheme, and blackmarketing of the medical books by the few book shops who solely sell medical books, it is not possible for majority of students to buy books. As the Library upto now has no fixed source of income, we urge the Vice-Chancellor to allocate Dow Medical College some of the money out of the budget which the Govt., has allocated the Karachi University, so that the students may be able to pursue their studies.

SPORTS FACILITIES:

The need for sports cannot be over emphasized, as it forms the integral part of the college life, but alas! such a big institution does not have anything or even anything resembling a gymnasium or a sports ground.

We feel that some kind of sports is a must, as it tends to promote healthy kind of competition amongst the students, and prevents them from channelizing their energies into political brawls. Anyway, if these students were to be weeded out, the college would be all the better place to live in.

UNION ACTIVITIES.

The ban on all the Union activities has made the college lifeless, and it would be much better if the activities were to be resumed in the near future, and the unruly mob who have always threatened to disrupt the peace and tranquility of the college, should be taken to hand.

Mr. Asif Ali Mansuri, President D.M.C.S.U., who was elected from our platform, must be congratulated for completion of his manifesto, a job no less than momentous, whilst taking in consideration the conditions he had to work in. He has collected a sum of Rs. 15,000 for the Lending Library, in which Y.M.O. had a great hand in collection.

Mr. Hashem Shariat deserves a big hand; Firstly, because it was the *first* time that a Magazine Secretary from Y.M.O. was elected and secondly, for bringing out a magnificent copy of *Dowlite* and *Namood-e-Sehr*. In bringing out this magazine he has put in a lot of hard work, which truly reflects the spirit in which the Young Medico's work, when once they put their mind to it and inshallah it shall become a standard by which the future magazines shall be judged.

It would be proper to mention here that amount of work that Dr. Mujibuddin Ahmed, President D.M.C.S.U., 1968-70, did for the benefit of the students of Dow.

I would like to put on the record that the Organisation is indebted to all those who have worked hard to place Y.M.O., where it is today, and they shall never be forgotten.

MAGAZINE 'QUESTAR':

I feel really proud that it is in my tenure, that the premier publication of the Annual Magazine "QUESTAR" materialized, and I hope it will become a tradition in the future.

The magazine is really a tribute to the people who have worked extremely hard, in bringing it out, and truly reflects the SINCERITY, SERVICE, and SACRIFICE of the members. I hope the future Young Medico's shall be inspired to much greater deeds and shall continue to serve the cause of the Medicos and public at large.

SOCIAL GATHERINGS:

During the past year the organisation has held a number of social functions, among the notable were the Y.M.O. Victory Party and a Welcome Party to the First Year. This year, we also hope to organise a few film shows for the benefit of the students, and in doing so we hope to pacify the students who are craving for some kind of social life in the college.

RESOURCES:

It is the unique characteristic of this organisation that it has no fixed source of income, so as to cover the cost of the publications. We have to

rely on the advertisements to cover our cost, and we are indeed very grateful to those firms who have been patronizing our publications. Keeping this in mind we have decided to publish a magazine which should cover the cost of the publications, and to a small extent that of the functions.

ACKNOWLEDGEMENTS:

Before I finish my report, I would like to thank my Cabinet members and colleagues who have helped me at various times, and without their guidance, and support I would have achieved nothing.

Lastly, the organization is greatly indebted to our beloved Patron, Lt. Col. Shaukat Ali Syed, who has guided and helped us in a very noble fashion and without whose help we would not have been where we are today.

Ali Hassan

Editorial

A magazine has a very peculiar evolution. For some it is a source of immense ridicule as regards its efficacy, and for others extreme pessimism and trouble as regards its publication—all this before it even sees the light of the day. However, once it does everyone seems to want to get hold of it, to read, either to appreciate, forget or find faults.

Nevertheless here we are with the first publication having struggled through its primary phase of evolution, a struggle and an effort which is too well known by all and need not be recounted. Here we are with no apparent apologies and regrets, for whatever came in the way, we feel was part of the job, and built up the effort and are with the hope that those efforts will bear fruit, and meet with your approval, and above all we are with all humility before God and a sense of extreme gratitude to ALL those who have helped us in various ways.

The first question that crops up naturally, is why the addition of this magazine in the already big pile of other publications. Surely we seem to print more than we ought to; surely we would do with a little more constructive work rather than this conglomeration of words and juxtaposition of ideas on paper.

Primarily, the magazine has been put forward to express our views, and voice our opinions on matter of concern to us, besides providing food for thought and secondly, it has to serve, and we hope it will, to provide a reasonably sound financing support and basis, by which we can bring forward more efficiently, regularly, and comprehensively all our other publications that serve to meet the academic requisities of students in all subjects. These publications, it may be pointed out, are

distributed free to ALL students according to their subjects, without any exception.

Although the secondary purpose does appear more frank and realistic in this predominantly mundane atmosphere, yet, we truly and frankly hope that through this magazine we achieve better understanding between students themselves, and their teachers.

Every individual, in this World has a set pattern of thinking and approach towards any problem, and everyone may be right in his own ways after all there are many different approaches towards the same goal. Likewise every group has its own collective, yet distinct approach, and hence it is sheer folly to get down to barbaric and uncivilized depths and sink in the abyss of indecency to project one's viewpoint by criticizing the other's to the extent of casting personal aspersions and forgetting all norms of ethics and decorum that go on to make us a part of this so-called civilized world. What is wrong by one standard may not be truly so, and even if it is, the method may be wrong—the intention sincere. So why is it that we students bend down to such disgraceful depths, and become so irrational and sentimental instead of letting our education guide us through objectively.

That is specially why every dawn brings forth a fresh array of problems, and every sunset leaves behind an non-ending list of unsolved ones.

If only we could succeed in forgetting and bypassing trivialities and rising above mediocrity, if only we could think of long term objectivity and rise above expediency and politics, we might be able to add our own chapter to the volume of some constructive and progressive effort and what a glorious chapter it would be.

Idealism—some may say—but do not all achievements start from that and to make it practical, we need not only the students awakening, but the truly sincere and above all BOLD guidance from our teachers.

Let us hope that is not far.

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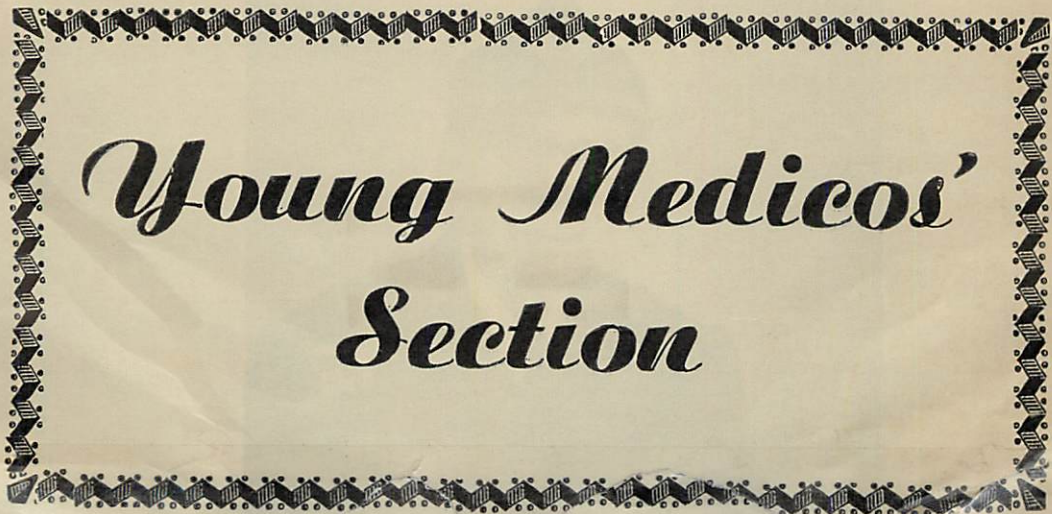
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Founder Patron



*Young Medicos'
Section*

Founder Patron



Late SURGEON COMDR. JELAL M. SHAH



AIMS AND OBJECTS

1. To strive towards the betterment of existing educational system particularly in the medical field.
2. To inculcate true patriotism and promote national spirit among the Medicos.
3. To serve as a medium to carry on struggle against various difficulties and day to day problems of the medicos.
4. To create 'Health consciousness' and look after the physical and mental wellbeing of the people in general and Medicos in particular.
5. To provide Medical relief when required.
6. To initiate and encourage educational cultural and literary activities by formulating policies, initiating schemes and undertaking projects in the interest of the students' community.
7. To create, develop and maintain cordial and friendly relations amongst the students.
8. To undertake social welfare work by raising the moral of youth and building up their character and personality.

Birth of a Party



*Patron Shaukat Ali Syed Steaping at a Annual
Function of Y.M.O.*

THE need for an organization of medical students on a country wide basis is not a new idea. As a matter of fact, no civilized country of the world, worth its name, is exempt from it. For a long time the Dow Medical College and its premises was used as a political arena, whereby the Medical Education and its noble profession was being misused.

The realization of the vacuum caused by the absence of such a medical students body organization in Pakistan, who would shun politics, and try to create an atmosphere which would be becoming of a medical institution, lead to a few students to poineer an idea, which has now become a very much a reality.

Thus was the birth of Young Medicos Organisation in 1957. At the time a delegation of five students led Mr. Rafiq Khan requested the Late Surg. Com-mander Jelal M. Shah to become the Founder Patron of the organisation.

Late Surg. Comdr. Jelal M. Shah who comes from a respected Iranian Family was the Principal and Administrator of Grant Medical College and Hospital in Bombay for 18 years, and subsequently Inspector General of Civil Hospitals of undivided India.

The Dow graduates and students alike are greatly indebted to him, for it was him, who was one of the three member Inspection team who came over from Bombay and granted and proposed the building of this D.M.C., in 1944.

It is interesting to note that originally, it was his suggestion for specialities units like Cardiology, Thoracic Surgery, Urology, Plastic Surgery, etc., for our College.

On several occasion Late Surgeon Comdr. Jelal M. Shah came over to our College and inaugurated the functions and his kind and precious advises to the Medicos are unforgettable.



Professor Mazharul Haque talking to the pioneers of Y.M.O.



Founder Patron Inaugurating the Annual Function

After the sad demise of the Late Surg. Comdr. Jelal M. Shah in 1967, it was unanimously decided by the members (old and new), to request Lt. Col. Shaukat Ali Syed, to take over as the successor of the founder Patron. Mr. Hashem Shariat, a member of Organisation went over to Lt. Col. Shaukat Ali Syed, and after explaining to him the organisations constitution along with its Aims and Objects, requested him to take over as the next Patron. He very kindly accepted to guide and advise the medicos' under his patronage.

The very next day a delegation of members comprising of Mr. Naveed Qureshi, Miss Sehba Durrani, Miss Jamila Memon, Miss Azra Hatimali, Miss Ishrat Ara, Mr. Khalid and Mr. Hashem Shariat presented the copy of constitution.

Lt. Col. Shaukat Ali Syed S.K., T.I., F.R.C.P., F.I.C.A., F.A.C.C., is a man whose talents and abilities need no introduction. His very kind advise to the medicos' in general and his keen interest in Young Medico's has always brought success and prosperity to the organisation.

It was under his patronage, that the organisation has swept through the elections for the past 3 years, and enabled The Young Medicos to serve the medical students, initially in Dow Medical College, but also other colleges through their most valuable publications.

Works of the Young Medicos

THE Young Medico's Organisation is borne of noble aims and lofty ideals; Unlike the other so-called student organisations working in our college the YMO, has always reiterated its firm belief, that it shall be always against:—

- (i) Any outside interference in the affairs of the college.
- (ii) Turning the college into an arena for national and international politics and playing into the hands of the politicians.
- (iii) Any unnecessary and unwarranted disturbance in the pursuance of our studies.

On the other hand, the Young Medico's have always maintained a strict nationalistic line, a feature amply proved by its various activities in the medical, social and cultural spheres. The Y.M.O., firmly resolves to work for Pakistan—the youth and people of Pakistan.

NATIONAL AND INTERNATIONAL AFFILIATIONS

Soon after coming into existence, the Y.M.O. sought affiliation with similar other organisations, and it was due to efforts of Dr. Rafiq Khan (President 1958-60), that we became members of The International Federation of Medical Students Association, which has got well over 200,000 students from all over the world.

Y.M.O. feels honoured that Pakistan was the first country from Asia, to become the member.

Y.M.O. is also affiliated to Pakistan National Youth Council, and in 1959-60 Dr. Inayat S. Husain, one of our member and now Asstt. Prof. Medical III, was elected President of P.N.Y.C.

In 1967, we were represented by Miss Sehba Durrani at a seminar on 'Asian Health Problem' in Beirut, where she read a paper on 'Health Problems of Pakistan & Recent Improvements in Public Health and Hygiene.'

ACADEMIC ACTIVITIES

It was this organisation, that first pioneered the idea of bringing out publications of high academic interest, corrected by our eminent professors.

A start was made by bringing Hygiene and Bacteriology charts by Dr. M.F. Khan, MS (Harvard) Asstt. Prof. Bacteriology DMC. Since then we have steadily increased the number of the publications which we distribute **free of cost**, inspite of a limited source of income, which comes from the advertisements.

FOR THE FIRST YEAR

- 1) Notes on General Embryology.
- 2) Notes on Surface Anatomy.
- 3) Formina Charts.
- 4) Angiology Charts.
- 5) Notes on Myology & Neurology.

FOR SECOND YEAR

- 1) Notes on Pharmacology by Prof. Mazhar-ul-Haque.
- 2) Biochemistry Notes.
- 3) Posology Charts.
- 4) Drug Dosage Charts.

FOR THIRD YEAR

- 1) 510 Viva questions on Jurisprudence.
- 2) Hygiene Charts.
- 3) Bacteriology Charts.

FOR FOURTH AN FINAL YEAR

- 1) Notes on Ear, Nose & Throat by Late Prof. Shafiuddin.
- 2) Text Book of Practical Surgery by Col. Said Ahmed. (Donated to lending Library).
- 3) Notes on Skin Disease.
- 4) Journal of Surgery—Approved by Deptt. of Surgery DMC & CHK. (Not free)

SOCIAL ASPECT OF YMO

LECTURES ON PREVENTIVE MEDICINE

The Young Medico's Organisation, is again the pioneer in initiating a scheme of delivering lectures on 'Health and Hygiene' in schools to make the

Youths of Pakistan Health conscious, and to teach elementary precautions against disease, and this has been widely acclaimed by the Press at large.

FILM SHOWS

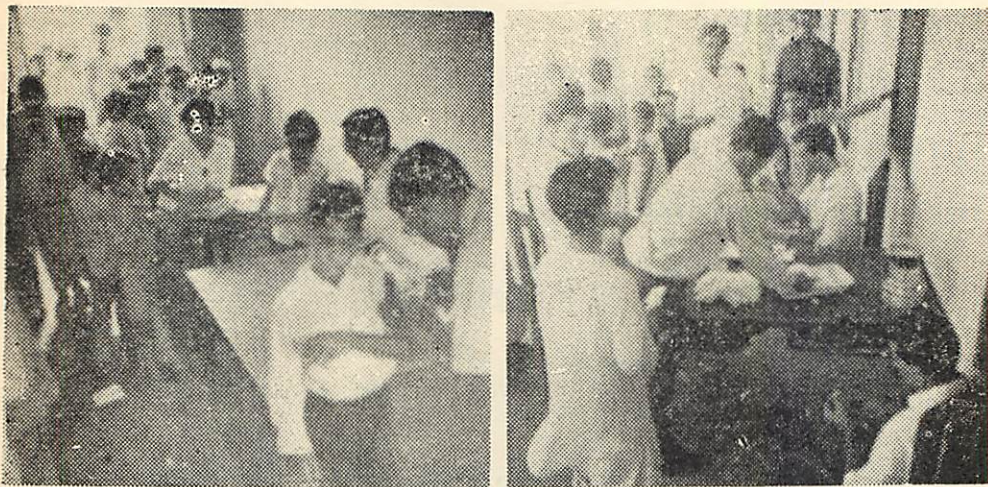
In a country like ours, where illiteracy claims a great percentage of population, visual teaching is extremely important, and thus keeping this in mind, we have on occasions tried to arrange some educative films on hygiene in the under-developed areas. We hope this idea will catch up, and a campaign at much large scale will help get rid off many a disease.

MANAGEMENT OF ENT WARD

The female ENT ward was established in Civil Hospital in middle of June, 1959, and at that time administration fell short of staff, whereupon, this organisation, volunteered its services, and about 15 students worked in shifts and worked for over one month.

VACCINATION AND INNOCULATIONS

During the dreadful Influenza epidemic in 1957, the Young Medico's approached the A.B. Biscuit Factory proprietors and put forth a scheme where the factory would bear the expenses and the organisation would volunteer workers. For 20 days, we worked whole-heartedly & innoculated roughly 20,000 people.

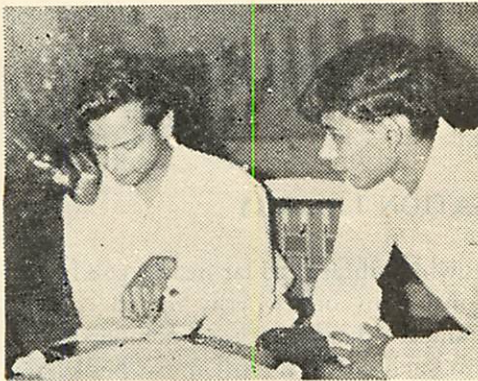


Keeping the social welfare of the nation in mind, We gave ready response to the Govt. in post flood mass inoculation campaign in 1959.

Again in 1960, Epidemic of Gastro-Enteritis and in 1966 Small-pox epidemics we showed our true metal. During 1967 rain havocs, on the call of KMC, we offered our services and ten corps of five students each were formed. A total of 32,830 people were vaccinated and about 25,670 were given medical aid. The Press widely acclaimed these yeoman services.

BLOOD DONATION CAMPAIGN

The organisation has been arranging off and on Blood Donation Campaigns in the city, and sometime back one of our members saved a life of a child, Master Farrukh by donating blood (vide Daily News 25th May, 67).



ROLE OF YMO IN NATIONAL EMERGENCIES

EAST PAKISTAN CYCLONE 1961

Thousands were rendered homeless, but YMO rose to the occasion and collected clothes, money etc., and the proceeds were sent to the 'President's Cyclone Relief Fund'. A variety programme was also held in aid of the Fund.

SEPTEMBER 1965 WAR

During the 1965 War YMO, formed voluntary corps, and collected clothes etc., for our gallant and superior forces. Medico Emergency Centres were opened in the city at YMCA, Wazir Mansion and Lalukhet. Our services were lauded by the then Commissioner of Karachi.

SOCIAL ACTIVITIES

It has become a tradition that YMO holds social gatherings of the highest standards and no year has gone by without functions being held.

V. LITERARY ACTIVITIES :

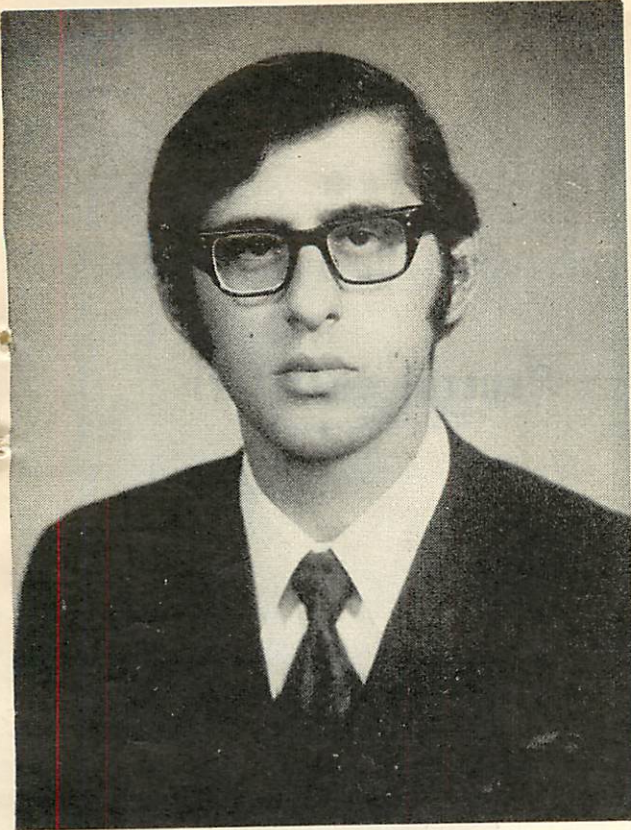
This section cannot forget the laurels brought to this organisation. Mushairas, Symposia, and debates were held throughout.

What the people complain of most against the Doctors of today is lack of Medical Ethics. Not only it is a mere public complaint, but it seems to be that a Doctor of today does not conform to the description of a Doctor given about 50 years back, that a Doctor is a Benvolent soother tirelessly distributing 'Sedatives with Sunshine, Aspirin with Aspiration, Liniment with Love and Quinine with Courage'. Towards tackling this aspect of a Medicos' Life, the Y.M.O. arranged a Symposium on "Medical Ethics" in 1962 in which distinguished men of the profession like Com. Jelal M. Shah (Late), Brig. Shariff, Col. Saeed Ahmed and Late Prof. A.M. Kassim and many others participated and delivered illuminating lectures which shall go a long way to a correct start. A colourful souvenir was also published on this occasion.

VII. YOUNG MEDICOS' ORGANISATION LIBRARY

The Y.M.O. is trying to set up its owing Library, So far nearly 100 books have been collected, these have been donated by our worthy members who qualified in the year 1967. We extend our sincere thanks to these members, who helped us in initiating and giving shape to such an idea. Still more books are awaited, few have been promised by our other members and Doctors and still others from different firms. And then we would be able to run a full fledged Library where from members can borrow books.

Cabinet



President

ALI HASSAN

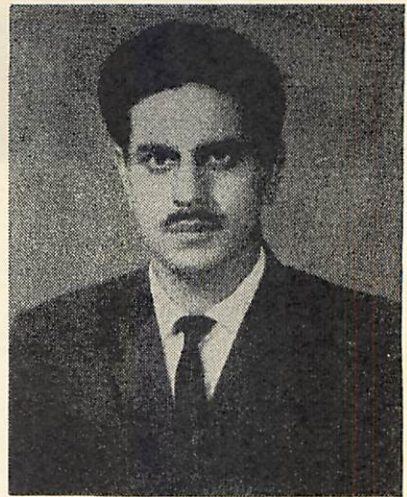
Vice-President

RABBIA SHAUKAT

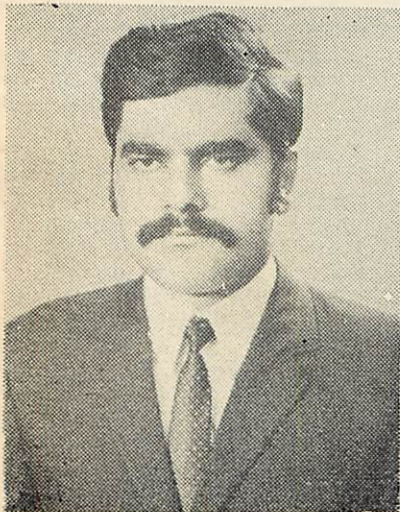




General Secretary
Masoodul Hasan



Nazar Hasnain
Publication Secretary



Nazim Adil
Publicity Secretary

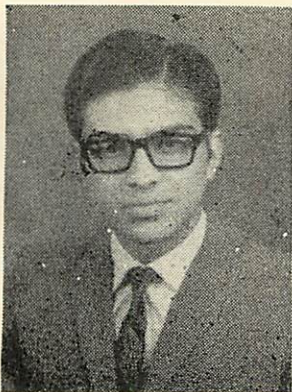




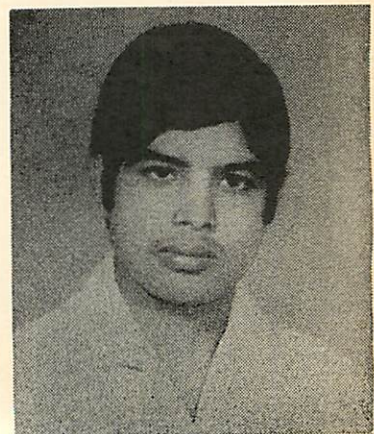
Raza
Gymkhana Secretary



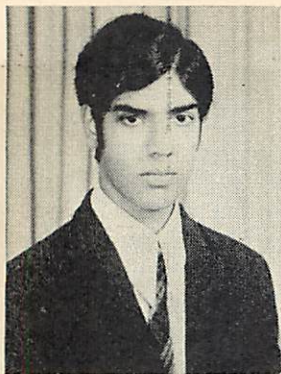
Zeba Faiz
Clinical Secretary



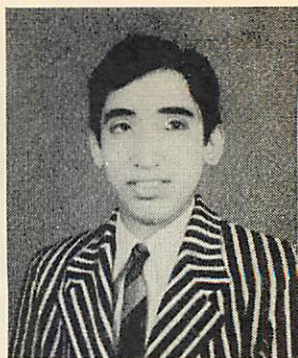
Taqi Adil



Abdul Moheet
Photographic Secretary



Tariq Sheikh
Social Secretary



Anwer Jalil
**Pre-clinical
Representative**

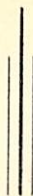


Shaesta Effendi
**Pre-clinical
Representative**



Sabiha Qazi
Joint Secretary

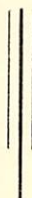
With



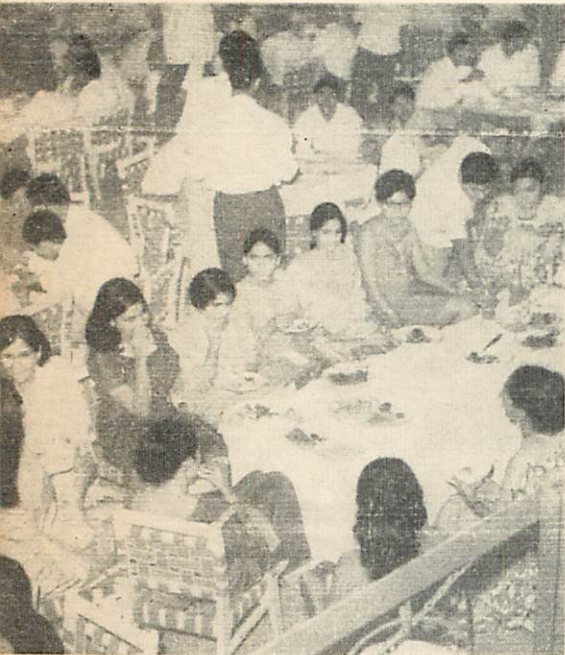
Compliments



from



NAGARIA
TEXTILES MILLS LIMITED



*A section of crowd at Welcome Party for
1st Year Students*



*Patron S. A. Syed being received at
a reception*



A Chance to Relax!



Presidents

YOUNG MEDICOS' ORGANISATION

- Dr. Kazim Shaikh 1957-58.
- Dr. Rafiq Khan 1958-59, 60.
- Dr. Ghulam Rasoul Chowdhery 1960-61.
- Dr. Rafiq A. Hussain 1961-62.
- Dr. Aziz Khan 1962-63.
- Dr. (Miss) Gulshan Dhanani 1963-64.
- Dr. Manzoor A. Arif 1964-65.
- Dr. Rahim S. Mecklai 1965-66-67.
- Dr. Tahir A. Khan 1967-68.
- Dr. Naveed Ahmed Qureshi 1968-69-70.
- Mr. Mazhar Qayum 1970-71.



WAY TO PROGRESS

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UBL's friendly staff is eager to solve their banking needs and help them prosper in a network of over 600 branches throughout the country, with foreign branches in London, East London, Birmingham, Sheffield, Bradford, Manchester, Bahrain (Babul Bahrain Road), Bahrain (Manama), Al Ain, Abu Dhabi, Dubai, Sharjah, Deira, Doha, Ajman, Umm Alqaiwain and Ras Al-Khaima. **UNION BANK LTD.**, a subsidiary of UBL. **UNITED BANK A. G. ZURICH** and **UNITED BANK OF LEBANON & PAKISTAN S.A.L.**

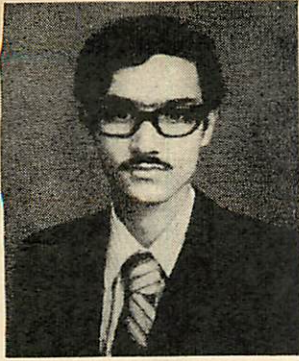
At **UBL** all clients are important.

PROGRESSIVE

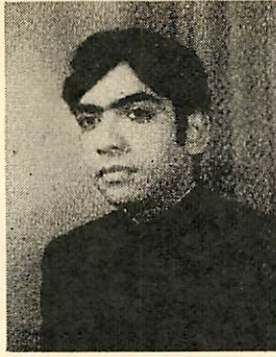
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We Owe Them



Abdul Qadir



Arif Herekar



Aftab Shah



Tariq Zahoor



Qadir



Amir Ali

Naim Abassi



Khalid Khaleel

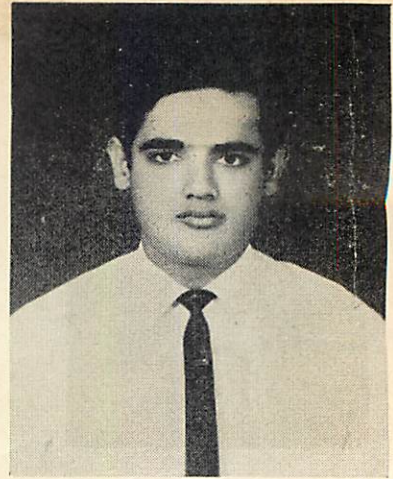


Mohd Ziaul Karim





Amjad Iqbal



Zafar Shahid

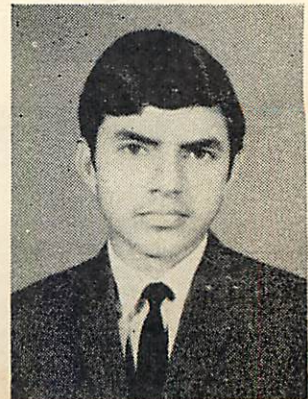


*Mubeen Hasan
2nd Year
author of
I Came, I Saw, but Failed to
Conquer*

Khrushid



Jamil



ACHIEVEMENTS THROUGH THE UNION

The confidence of students in Young Medico's Organisation can be judged by looking into the results of last six College Elections. By the Grace of Allah and the support of the students, the presidential candidates from our platform have been elected in five out of six elections.

It is not by chance, but because of hard work and devotion that Y.M.O. has been honoured with so many victories. The hard work can be seen by everyone in a brief account which follows.

RAZZAK (1963-64)

In the College Elections for 1963-64, Mr. Razzak won from the Y.M.O. platform, and in the same year he was elected as the Chief of the Inter Collegiate Body.

All through out his career he has been the worker of highest order. He was awarded first Prize for collecting the highest collection of Rs. 13,500 for 1960 FETE.

After being elected in the office of the President of Dow Medical College Students Union he achieved :

1. Promotion of II Year (New and Old Course) to III Year M.B.B.S.
2. Cancellation of Expulsion Orders for first year, and second year students.
3. Increase in Scholarships :-
78 more scholarships were obtained for the Best Graduates.
4. The popular demands of Gaps between theory paper and results within 15 days of Examination was fulfilled.
5. A new rule was seen to come in effect. To clear a subject a student was now required 40% marks in theory and 50% in practical. Nearly 40 failed students were declared pass and 7 became doctor after imposition of the new rule.
6. The cancellation of Special Pathology from the course of condensed students was done.
7. Postponement of Annual Examination for one and a half month.
8. Unification and Co-ordination between students of different Medical Colleges.
9. More Paid house-jobs for all Medical Colleges of West Pakistan.

ZAKIUDDIN (1965-66)

The year 1965 is very important not only in the History of Pakistan, but in the History of Dow Medical College.

In this years, college elections Mr. Zakiuddin, a candidate of Y. M. O. was elected in the office. It was a period of National Emergency and the whole budget was donated to National Defence Fund, even then a remarkable list of achievements are to his credit and students demands were fulfilled and problems were solved.

During his tenure Zakiuddin got :

1. Reprisal of the Expulsion order of 25 Medicos in 1965 and again expulsion order were cancelled in 1966.
2. A Special supplementary Examination were held for the first time in Dow Medical College.
3. The Examination fee for the Special Supplementary were reduced from Rs. 200.00 to Rs. 30.00.
4. A branch of **Post Office** was approved in College on 26th March 1966.
5. A new hostel for the Boys was completed.
6. Public Telephone was installed in the canteen. (which is not there now because of being shifted to the corridor).
7. Loud Speaker was fitted in main Reading Hall.
8. News-paper Stands were installed outside the Union Office.
9. Girls Common Room was improved, new sofas were provided and toilet were renovated, arrangements for prayers were made.
10. A seperate duty room was got sanctioned for students ward and a Telephone was installed.
11. New Books worth Rs. 12,000.00 were bought for the Lending Library and the interior of Library was completely renovated.
12. In the interest of the Nation the Union Budget was donated to the National Defence Fund, and further more Rs. 4000/- were collected for National Defence Fund.
13. A mobile Corp was formed and Union Office was turned into Medicos' Emergency Centre.
14. The foundation stone for the Branch of the Bank was laid and the construction started.

M. KHURSHID (1966-67)

Mr. Khurshid was elected as president of D. M. C. S. U., for the year 1966-67. Before election he was a dedicated worker of Young Medicos' Organisation.

Student's Problems :

- a. For the first time exemption was given in individual subjects and students were given upto 5 grace marks although they failed in other subjects.
- b. Separation of E.N.T. and Eye from Surgery papers. Previously according to syllabus, these were one subject.
- c. B. Sc. degree for Students who have passed their M.B., B.S. after appearing in English Paper.

New Construction and Installations :

- a. Library lecture theatre was rebuilt and improved.
- b. Biochemistry Laboratory renovated.
- c. Telephone installed in Union Office.

Common Rooms :

- a. Girls common room broken and rebuilt.
- b. Boys common room completely renovated and enlarged.

Students Day to Day Problems :

- a. Result of special supplementary examination and Schedule examination of 1965 were revised. Students were given extra marks.
- b. Dropping of internal evaluation marks in special supplementary examination.
- c. Gap between Final year theory papers.
- d. Students getting expelled in First year got one extra grace mark and were Saved.
- e. Extra classes for students of Special supplementary.
- f. Extra classes for Students having less attendance.
- g. Gynaecology posting for final year.
- h. Third year posting changed to old routine i. e. only Medical and Surgical posting.

Fete :

- a. Glamorous FETE HELD this year.
- b. Rs. 32,000 were net saving from the income of Rs. 40,000.
- c. New books purchased and distributed.
- d. Lending Library renovated (new counter made).

Students' Ward :

The students ward was further improved. It was shifted to paying ward with 24 hours service.

Increase in House Jobs :

The house jobs were increased, with each wards having Hon. residential house staff.

Improvement of College Environment :

- a. Removal of victoria stand.
- b. K.M.C. issued orders for the removal of urinal near the college.
- c. College canteen was completely renovated.

Scholarships :

- a. More scholarships awarded for Deserving students.
- b. Old scholarships renewed.
- c. Thirty Freeships for first year students.

Rifle Club :

Rifle Club started this year. Training was given in Fedral Rifle Club at Queen's Road. The new forms are printed for Medicos' and fee was reduced from Rs. 85 00 to Rs. 17.00 only.

Patients Welfare Society and Drug Bank :

The patient welfare Society was formed in November 1966 and Mr. Tazeem Ahmad was appointed Secretary of the Society.

The Drug Bank was started with a room taken from the Administration. Drugs were given to those students who were admitted in students ward.

AND NOT THE LEAST

Representation were made to the following regarding our problems.

1. Governor.
2. Health Minister.
3. Health Secretary.
4. Minister of Education.
5. Minister of Local Government.

All these and much more was done in a peaceful manner without any hinderance to the academic life.

MUJIB-UD-DIN AHMAD (1968-70)

The year 1968-69 was a year of achievements in letter and spirit. So much was accomplished during this year that a feeling was generated that very little was left for his successors by Mr. Mujibuddin Ahmed. It goes to the credit of Mr. Mujibuddin Ahmad alone that inspite of hurdles and obstacles rendered manifold by members of the cabinet and the opposition which opposed him in all his endeavours for the sake of opposition he accomplished what is a nightmare for some in our institution. Inspite of college being rendered closer for 5½ months by destructive elements, he went about discharging his duties and fulfilling his promise undeterred and unflinched.

The facts will speak for themselves and from the following one can judge whether or not Mr. Mujibuddin Ahmad has fulfilled the obligations which were put on him when he was elected as President of the College Union.

Increase in Number of Seats in Dow Medical College :

- 30 Seats increased for Karachi.
- 5 Seats increased for Quetta and Kalat Division.
- 2 Seats increased for Services.

Modern Gate for the College :

Constructed at a cost of Rs. 8,000

Air Conditioning of Dissection Hall :

- 20 tons plant installed.
- False ceiling and special Phillip tube lights installed.
- Dissection hall painted and distempered
- Curtains provided.
- Total cost 89,645.

Air Conditioning of College Library :

- a. Two 2 tons air-conditioning plants installed.
- b. Special partition with gate provided. Total cost Rs. 9,200.

Improvements in Boy's and Girl's Hostels :

- Common rooms in all Hostels renovated.
- New furniture provided in Old Boys Hostel No. 4.
- 200 new beds provided in hostel No. 4.
- Flush system replaced in Girls Hostel.
- New furniture provided in the Mess of all hostels.
- Chairs and study desks repaired in all hostels.
- Ceiling of rooms in Old Boys Hostel repaired.
- Repairs of the Old Boys Hostel.
- 50 seats increased in Hostel No. 4 in 10 newly constructed rooms.

Removal of Difficulties of Condense Course Students :

Exempted from the subject of Pathology.
 Special classes in subjects of Jurisprudence and Hygiene.
 Special examination in Hygiene for batch of 1967-68.
 Hostel accommodation made available to new entrants.

Abeance of Expulsion Rules :

Expulsion rules relaxed by another year (duration raised from three years to four years).
 All expelled students irrespective of year of expulsion given one more chance.

Increase in Pay of Doctors during House Jobs :

Pay of junior Doctors during House-job raised from Rs. 120 to Rs. 250.
 Pay of senior Doctors during House-job raised from Rs. 200 to Rs. 350.

Gold Medal Awards for position holders :

Seven Gold Medals were awarded to the following :
 Best Graduate of 1958 - Dr Bahu Sultan Shaikh.
 First position in First professional part - I Miss Rabbia Shaukat Ullah.
 First position in First professional part - II Mr. Ikramullah.
 First position in second professional examination — Miss Asma Soofie.
 First position in Final professional examination — Dr. Bahu Sultan Shaikh.
 Best Sportswoman 1968 - Miss Rabia Shaukat Ullah.
 Best Sportsman 1968 — Mr. Khalid Farooqui.

They were awarded at a very colourful ceremony presided over by Mr. Justice Abdul Qadir Shaikh of West Pakistan High Court and attended by all the staff of the College. The Medals shall continue to be awarded every year.

T. V. Sets in All Hostels :

Russian T. V. sets 23" installed in Boys Hostel No. 4, Boys Hostel No. 2, Old Hostel and Girls Hostel.

Drugs Bank :

Nothing could be done as the charge was not handed over by Mr. Dost Mohammad ex. President (1967-68).

Extension of College Canteen :

Extended in the corridor of Girls Common Room for the benefit of the Girls. 16 chairs and four tables were provided.
 College Canteen fully renovated and freshly contracted for a year which expires in April, 1970.

General Upliftment of Allopathic System of Medicine :

Class I status conferred on all Doctors joining Government service after relentless struggle under the banner of Central Medical Body with the President being its Chief Representative in Karachi.

Day to Day Problems :

Postponment of annual examinations of 1968 by 3 weeks.

Revised results for failed students of all professional examination of 1968.

Postponment of schedule examination of 1968.

Postponment of annual examination of 1969.

Extra classes for students having less attendance.

Supplementary to supplementary rule held in abeyance in 1968 and 1969 and students who pass in supplementary examination allowed to appear in subsequent annual examination.

Extra lectures for final year class due to forcible closure of College for 5 months.

Posting in casualty wards restored.

Night posting in various wards restored.

High quality diet to students in students ward.

Water coolers repaired through courtesy of American Refrigeration Company and installed in Girls Hostel, Union Office, Boys Hostel No. 4.

Exemption in fees for the closure period i. e. 5½ months by the College Authorities.

Classes functioned normally in College for one and half month when all Institutions were closed in the City.

Got orders for re-opening of College before imposition of Martial Law.

Special Supplementary Examination for Failed Students of 1968 :

Five percent Grace Marks to Students in all Professional Examinations.

Five percent Grace Marks to Arab Students affected by Arab Israeli War of 1967.

Agreements with Habib Bank revised in the light of Agreements with Mr. Zakiuddin and Mr. Khursheed and Rs. 45,000 received from Habib Bank in addition to Rs. 75,000.

ASIF ALI MANSURI (1970-71)

The election of 1970-71 brought a new achievement in Y.M.O. history. Never in any of our college elections a candidate won by the majority of 100 votes.

Mr. Asif Ali Mansuri, though won with a great majority, had a great task in front of him. He had to face the violent and destructive opposition. But nevertheless he did accomplish nearly all the points of his manifesto.

LENDING LIBRARY :

This year books worth Rs. 15,000 have been purchased. This being apart from the books which we collected from philanthropists of the city.

SILVER JUBILEE AND FETE :

Every fourth year, there is a colourful Fete. Preparations were in full swing and they were in their final stages, when Union activities were banned. Thus our efforts were wasted.

This year we were also suppose to have Silver Jubilee of our College, but again due to ban on activities the celebrations had to be cancelled. A great banquet was envisaged ; the cards had been printed but also to no avail.

BUS SERVICE :

As proposed, the bus service between the Boys Old Hostel and College was started for the benefit of the students in the morning.

TELEPHONE INSTALATION :

Within one month of the elections telephones were installed in hostels and also the telephone from the Union Office was removed and placed in corridor for the convience of the students.

CANTEEN :

Canteen was renovated, and for the first time lunches were served at a nominal charge of Rs. 1/-.

INCREASE IN PAID HOUSE-JOBS :

Previously, there were only 22 paid jobs, but after great but **Peaceful** struggle the number was increased to 33.

GOLD MEDALS :

Seven Gold Medals, as in Mr. Mujibuddin Ahmed's tenure, and four additional Gold Medals, await distribution.

A Special Gold Medal "Professor Shafiuddin Memorial Gold Medal" for first position holder in subject of Otorhino — Largrageology to be given this year.

HOSTELS :

This year has witnessed tremendous improvements in both Girls and Boys hostels.

Matron for the girls hostels obtained as promised in the manifesto.

BAN ON URINATION OUTSIDE COLLEGE :

Urination was common next to Habib Bank, which gave off nasty smell but now there is nice green patch of grass, with the area fenced off from the indulgers of that habit.

IMPLEMENTATION OF THIRD FIVE YEAR PLAN :

Mr. Mansuri tenure saw the beginning of the implementation of the Plan, with nearly half of the project complete.

There is a common room for Girls and Boys. A union room and many other facilities for the students.

SYLLABI :

1970 saw the demarcation of the papers of Medicine and Surgery for the examination point of view.

Eye and E.N.T. were separated from this year.

Examinations of 1970 were postponed as promised by Mr. Mansuri.

VACATIONS :

As promised 1 month Summer Vacations were obtained for the First and Fourth Years.

REPRESENTATIONS :

Countless representations were made to :

- (i) The Governor.
- (ii) Health Secretary.
- (iii) Vice Chancellor.
- (iv) Administrator,

regarding the problems of the students. The problems of Condensed Course Students were also looked into, and solved as they arose.

Last But Not the Least :

It is quite remarkable that all these achievements have been attained by peaceful means with complete cordiality maintained between the authorities and students.

Also not a single day was wasted on strike or in any other form of trouble making.

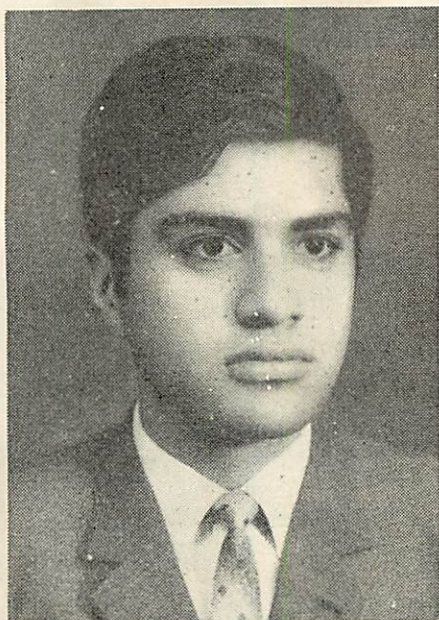
OUR PRESIDENTS IN THE UNION



Razzak
1964-65



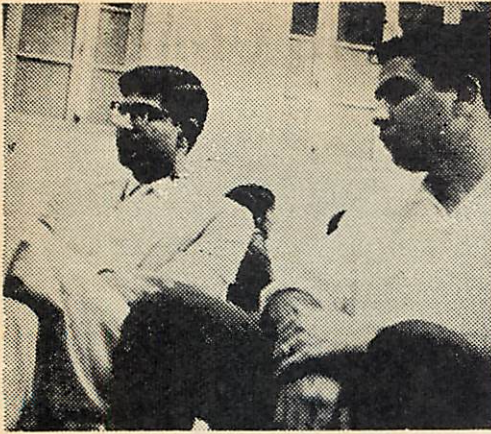
M. Khrushid
1966-67



Asif Ali Mansuri
1970-71



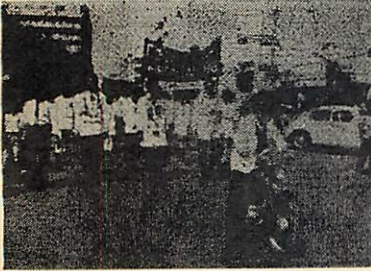
Zakiuddin Ghulamali
1965-66



*Dr. Inayat Husain Assist. Professor
of Med. III (one of the founder members)*



ELECTIONS FESTIVITIES



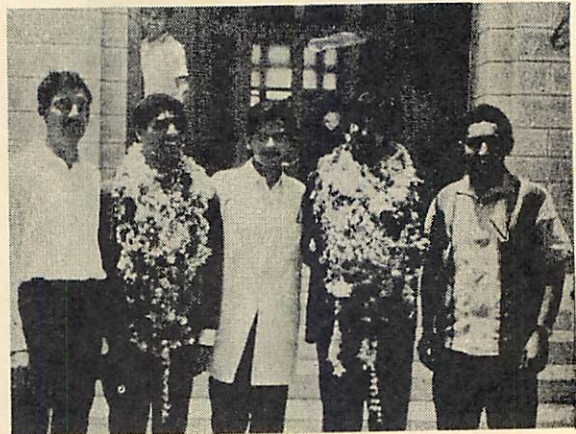
*Y.M.O. in lead
Procession for Class I*



*Mujeebuddin Ahmed Speaking
at P.M.A. House*

*Mujeebuddin Ahmed
(President D.M.C.S.U. 1968-70)*

A Time to Relax





Victor Emmanuel's monument in Rome and Capstan's
International quality — equally famous the world over!

Retail price : Rs. 2.00 for 20 plus 30 paise Surcharge
Rs. 1.00 for 10 plus 15 paise Surcharge



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- DOES NOT DISTURB INTESTINAL FLORA
- VERY HIGH TISSUE CONCENTRATION
- BACTERICIDAL - UNIQUE MODE OF ACTION
- EFFECTIVE AGAINST PENICILLINASE PRODUCING ORGANISMS
- WELL TOLERATED - LEAST SIDE EFFECTS
- SIMPLE MORNING & EVENING DOSAGE

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Treatment of Angina Pectoris

S.A. SYED, S.K., T.I., F.C.P.S., F.A.C.C., F.R.C.P. (Ed.)

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The term Angina Pectoris was introduced by Heberden in 1768 to describe the distinctive disorder manifested with a strangulating or choking feeling. Heberden described angina pectoris as a special disturbance in which the chest pain was of a peculiar nature. Several accounts of angina pectoris were published by a number of authors but none is so vivid and concise as the classics of Heberden published in 1772. The following abridged portion of his description published in 'Commentaries on the history and cure of diseases' in 1802, can still be served as an important clinical guideline for the diagnosis of angina pectoris.

"But there is a disorder of the breast marked with strong and peculiar symptoms, considerable for the kind of danger belonging to it, and sense of strangling, and anxiety with which it is attended, may make it not improperly be called angina pectoris.

They who are afflicted with it, are seized while they are walking, (more especially if it be up hill, and soon after eating) with a painful and most disagreeable sensation in the breast, which seems as if it would extinguish life, if it were to increase or to continue, but the moment they stand still, all this uneasiness vanishes.

In all other respects, the patients are at the beginning of this disorder, perfectly well and in particular have no shortness of breath from which it is totally different. The pain is sometimes situated in the upper part, sometimes in the middle, sometimes at the bottom of the OS sterni and often more inclined to the left than to the right side. It likewise, very frequently extends from the breast to the middle of the left arm. The pulse is, at least sometimes, not disturbed by this pain, as I have had opportunities of observing by feeling the pulse during the proxysm. Males are most liable to this disease, especially such as have their fiftieth year.

After it has continued a year or more, it will not cease so instantaneously upon standing still, and it will come on not only when the persons are walking but when they are lying down especially if they lie on the left side and oblige them to rise up out of their beds. In some inveterate cases it has been brought on by the motion of a horse or a carriage and even by swallowing, coughing, going to stool or speaking or any disturbance of mind.

Such is the most unusual appearance of this disease, but some varieties may be met with. Some have been seized while they were standing still, or sitting, also upon first waking out of sleep and the pain sometimes reaches the right arm, as well as the left, and even down to the hands, but this is

uncommon ; in a very few instances the arm has at the sametime been numbed and swelled. In one or two persons, the pain has lasted some hours or even days, but this has happened when the complaint has been of long standing, and thoroughly rooted in the constitution: once only the very first attack continued the whole night.

I have seen nearly a hundred people under this disorder of which number there have been three women and one boy twleve years old. All the rest were men near or past the fiftieth year of their age.

Persons who have persevered in walking till the pain has returned four or five times, have then sometimes vomitted.

The termination of angina pectoris is remarkable. For if no accident intervenes, but the disease goes on to its height, the patients all suddenly fall down, and perish almost immediately of which indeed their frequent faintness and sensations as if all the powers of life were failing, afford no obscure intimation''.

Treatment

The treatment of angina pectoris, like any other illness, is designed primarily on the management of the underlined disease.

The prevention of attacks of angina pectoris depends on the treatment of the contributing causative factors and the elimination or cure when possible, of the factors which initiate or contribute to the precipitation of the attacks of angina.

Treatment of angina may be divided as follows :

I. Symptomatic relief of pain

- i. Nitrites represent the only specific medication in the relief of angina pectoris.

When glyceryl trinitrate is kept under the tongue, it is rapidly absorbed from the mouth. It causes peripheral vasodilation but not coronary vasodilation, as was once believed. The use of nitroglycerin thus reduces the resistance against which the ventricle has to pump. This in turn leads to a drop in ventricular wall tension. The reduced ventricular volume, resulting from the improved emptying of the heart, leads to a further fall in wall tension. In this way, myocardial requirements fall and angina is relieved.

The effects of glyceryl trinitrate are noted within 2-3 minutes and last for 20-30 minutes.

Nitroglycerin is the drug of choice for the attacks of angina pectoris, since it is cheap, convenient to take and acts most rapidly. The usual therapeutic

dose of glyceryl trinitrate is 0.5 mg., but it is preferable to begin with 0.25 mg. administered sublingually. The tablets generally do not lose their effectiveness even when kept for long periods of time. However, patients may develop tolerance to it, requiring higher dosage for relief.

Nitroglycerin has also been made available in a "sustained action" tablet for oral use and a tablet, taken twice a day, is said to prevent or greatly diminish attacks of angina pectoris.

Nitroglycerin tablets can be employed prophylactically, and patients should be advised to take them before taking up any work which is likely to produce the attacks of angina.

Long-acting nitrates: Despite the optimistic reports, long-acting nitrate compounds do not produce sufficiently consistent benefit, and thus can only be recommended with reservation.

- ii. Propranolol is a beta-adrenergic blocking agent. It competitively antagonises the action of noradrenaline, which is released at the sympathetic nerve endings in the heart. It also blocks the cardiac effects of sympathomimetic drugs and circulating adrenaline released by the adrenal medulla. It reduces the heart rate, force of ventricular contraction and the rate at which that force is developed. Because of these three actions, it relieves the pain of angina pectoris. It is given in doses of 20-40 mg. three or four times daily. Propranolol is contra-indicated in patients with latent or obvious heart failure, who are dependent on their sympathetic drive. Propranolol causes broncho-constriction in asthmatics and bronchitics, and also sometimes in patients without respiratory disease.

The use of glyceryltrinitrate, along with beta-adrenargic blocking agents has an additive action in relieving angina, as these two agents act at different mechanism.

- iii. *Sedatives:* Sedatives are used to allay anxiety and minimize emotional reactions which may precipitate attacks of pain. Phenobarbital is prescribed more frequently. The drugs, such as meprobamate, diazepoxide, diazepam and trifluoperazine are prescribed on similar reason to reduce emotional tension.

II. Identification and removal of provoking factors

- i. Treatment of Hypertension.
- ii. Treatment of Anaemia.
- iii. Treatment of Hyperthyroidism.
- iv. Treatment of Diabetes.
- v. Stop smoking.

All the above factors are provoking factors for angina, and proper therapeutic measures to control the above are likely to help patients with angina pectoris.

III. Prophylaxis by correcting basic disturbance

- i. Diet.
- ii. Clofibrate.

There is no specific dietary treatment for patients with angina pectoris except a low fat diet designed to inhibit an underlying coronary atherosclerosis.

In patients, who complain of postprandial angina pectoris, it is advisable to divide the dietary intake into small meals which may be taken more frequently than the usual full meals three times daily. Such patients are benefited by avoiding any exertion immediately after eating.

Diet (rich in poly-unsaturated fats) and clofibrate have not been shown to influence survival in the established cases of angina pectoris. Diet, however, helps to reduce to the ideal weight and is of help in reducing the fat or carbohydrate induced hyperlipidemias.

Clofibrate should be considered in those patients who are not above the ideal weight but have raised serum cholesterol and a family history of coronary heart disease.

IV. Surgical by-pass of stenosed coronary artery segment

There is little evidence that cardiac flow is increased by internal mammary artery graft into the myocardium but some patients are symptomatically improved by this operation.

In some patients, whereby coronary arteriography a single stenotic lesion can be demonstrated, a vein graft procedure is helpful in relieving the angina.

V. Anticoagulants

Heparin has been reported to have a beneficial effect on angina pectoris. Many reports are also available to show that it is not a useful therapeutic agent.

The role of anticoagulants is much debated, but there is less argument about their use in men under 45 who experience increasing angina.

The psychological approach to the patient with angina factors and the regulation and modification of his work and daily activities are important part of the treatment and must be carefully adjusted to individual patients by the treating physician.

Some Aspects of Research

G. Ahmed *HQA*.

Research, including medical research, is now receiving growing attention in Pakistan. The Scientific Commission, appointed some ten years ago, gave the subject considerable thought and, as a result, a National Science Council was established to serve in an advisory capacity, the Government as well as the various research councils, including the Medical Research Council, sponsored by the Government. More recently, the Government has appointed a Commission to examine the whole question of research afresh in all its aspects. The Government has also expressed its readiness to allocate more money to research during the current financial year.

These are necessary and welcome developments. Care would, however, need to be taken not to lose sight of the inherent limitations from which research in Pakistan is likely to suffer for several years to come. These limitations, very briefly, are (a) paucity of resources and (b) paucity of talent. Not to recognise these limitations in building grandiose plans for research, and not to formulate national research strategy within the compass of practicability will not help. These limitations may lessen in severity in course of time, but at the moment they simply cannot be wished away.

The logic of the situation, therefore, demands that whatever resources and talent the country possesses or can muster should be deployed to the best advantage. Priorities of research should be determined at the national and provincial levels by effective bodies representing important interests and organisations. And these priorities must be firmly adhered to. Public money should not be frittered away on projects, however attractive, which may capture the fancy of a researcher but which have only remote relevance to national interest.

Some years ago I was shown in a West Pakistan University, a section on cancer research run by an enthusiastic researcher. Now, while cancer research has world-wide importance, I wondered whether the pitifully meagre resources of the University were being meaningfully used in a field where millions of dollars were spent in the advanced countries on extremely well equipped laboratories manned by the best brains engaged on cancer research. Of course it is theoretically possible that the lone researcher in the West Pakistan University be just the person who may, with great intellectual diligence or sheer good luck, find the solution to this terrible problem. But genius or serendipity apart, the project did not seem to suggest ideal management of scarce research resources.

Here the point may be made, that a clear differentiation should be observed between fields of original research and of adaptation of innovations of other countries to domestic needs. Fields of original research in which developing countries may be able to enter should be very few indeed. The emphasis should be on adapting the results of successful research elsewhere to internal conditions and requirements. It may well cost a fortune to discover a new device or a new drug: something that a country like ours can hardly afford. But it may cost very little to adapt the discovery to our special needs. Admittedly, the distinction between original and adaptive research is less marked in medical research than in several other scientific and technological fields.

It is often suggested that basic or fundamental research should be the responsibility of the universities, while applied research should be conducted by special Government-sponsored research institutes. The two types of research are so intertwined today that this classification, in terms of modern conditions, is no longer valid.

Finally, it is important that the private sector should play a far more active role in undertaking research and development. The more important hospitals should be so equipped as not only to cater for medical needs but also to become centres of medical research.

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Problems of Medical Education in Pakistan

Dr. Najib Khan

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*Professor of Medicine,
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Mr. Ali Hassan, President of Young Medico's Organisation desires an article on Medical Education in Pakistan, for a journal that Young Medico's Organisation is publishing. I, as a Professor in this college, and dedicated to Medical Education and, therefore, am glad to see that the students of our college are interested in Medical Education. Therefore, I have pleasure in writing this short note.

Purpose, of all education is to change the mentality, Nay, the very process of thinking, from uninhibited, uncivilized man, to a man with reason, logic and other considerations which we pride as a quality of a civilized man. Medical Education should further aim at making a civilised, gentle doctor, who is an asset to the community and beheld as an example to the society. A doctor, especially the General Practitioner, who is the backbone of medical profession, is not only a healer of his patients but a friend and a guide. For these responsibilities exemplary character is necessary.

Let us see, how far Medical Education in Pakistan has succeeded. First, let us consider the sort of teachers which we have—I am one of these teachers. Can I consider myself to be setting an example to my students and

young doctors? It is practice not preaching of teachers which will influence the students. I am still old fashioned, to believe that a professor is *one who professes what he believes and practices what he professes*. I still believe, that best definition of a Professor, is a person who keeps on trying to achieve perfection, knowing full well that perfection cannot be achieved.

Our students, whom we teach, are from our own blood and, therefore, cannot be very unlike teachers themselves. Our students, as children, are all gentle, adorable and wonderful; But going through the mill at primary and secondary schools and the college, having faced the various types of teachers and being subjected to, so many harmful stimuli are greatly changed by the time they reach the medical college. The other day, a Professor friend of mine, told me that his son who had stopped studying for his Inter-Science exams, when questioned by the father reprimanded the father, for not helping the son. The boy said, he had studied very hard, but in term examinations he had received less marks than the boy, whose father had given the teacher a big present. The boy further added, he knew that the Principal's son is going to stand first, no matter how hard anybody studies. This is not a solitary example, but is a common cause of the revolt of the youth. My young nephew, told me the other day that there is little point in going to college, as not even half the lectures schedule are delivered.

The students coming to medical college have all achieved 1st class in Inter Science, but how many of them have had their process of thinking changed as education should have done? How many of them, have learnt the lesson that fair-play and hardwork will be rewarded? How many of those who come to medicine, because medical doctors at top of their profession are rich people?

Attendance at classes is most incredible. Is it not the rule of the university that minimum of 2 out of 3 classes should be attended in each subject; But I fear in most of the classes hardly $1/3$ rd attend at the best of times, and several months before the examination the attendance in class and clinics falls to less than 10%. And yet, hardly anybody is detained, because of incomplete attendance.

As a Principal of Medical College, once, I enforced that rule, and in the bargain nearly lost my head. A student, with less than 20% attendance, sat in the examination that year and of course got through. Irregular students in classes do harm to themselves, but harm other students whose progress cannot be as quick as it should be because the irregular students have also to be taken care of, when they attend the class. It is probably, for this reason more than others, why some teacher lose interest in teaching and bother not, about their class responsibilities.

Teaching, is difficult for the teacher, as well as, the taught. I have recently been to Europe, especially England and have discussed the problem of

curriculum and teaching methods, with various teachers. All over the world, the science of teaching is vital and progressive science, where, at the national, as well as the faculty level, constant discussion go on to improve. Alas, in Pakistan, since the conferences on medical education that I arranged in 1958-59 at the Science Conferences there has been no similar activity.

In our medical college, emphasis seems to be on examinations and not on teaching. Passing the examinations seem to be the main aim of most of our students. For that, they will use fair as well as foul means. Our examinations, are also strange as the students who don't attend the classes can pass. I have often, therefore, thought and said that if our medical college and teaching hospital was shut down there may not be a serious catastrophe, as number of students who attend regularly is very small.

To pass the examination, that is what the student desires and, therefore, works harder in getting gracemarks, postponements and other similar concessions than at learning a and mastering his subjects. Anybody who tries to oppose the postponement of examinations is sure to be in trouble. Anybody who tries to advocate the enforcement of the rules of game of teaching and learning is unwanted. We are afraid, to enforce rules, and raise the standards because the Young Doctors may pass a vote of no confidence !

What is the result of all this and when are we going to put a stop to this kind of affair? Some of our medical graduates have earned serious strictures in U.K. One has been deported and some removed from their jobs as House Officers for their inefficiency. The standard of practice is not going up. Pray, do not misunderstand me. We have some very brilliant boys amongst our students and they will learn themselves, and get to the top. There is an example of a Nishtar boy, who topped in the 1st Professional Examination of University of Punjab at the time, when there were hardly any laboratories at the college and the complement of the teachers in basic departments of Anatomy and Physiology was very poor. As a teacher, my responsibility is **dual**—To look after the mediocre and make the worse in my class come upto the standard, and also to inspire the brilliant students. The first responsibility needs greater emphasis.

Unless the universities and the colleges, and also the teachers of the universities and the colleges accept the position of the university as the seat of learning and allow themselves neither to be influenced by the Govt. expediency nor the politicians gain, there can be no hope for education. Besides the university, in Medical Education, Medical Council of Pakistan has to play a vital role in the same manner as universities and colleges.

We teachers should realise our responsibilities and do not give into cheap popularity, personal gains or even blackmail. The present system of teaching

syllabi, courses and examinations needs thorough examination. In my Presidential address at the Medical and Veterinary section of the 77th Pakistan Science Conference in 1965, I said, that we should admit students after the B.Sc. degree, for four years in medical college and where they are taught Anatomy and Physiology in first year, whereas the clinical subjects in the next two years and last year to be wholly devoted to clinical work. This is what I saw being practiced last month with excellent result at the American University of Beirut.

Examination should be, **NOT** at the end of two years in basic subjects and after 3 years in medicine and surgery, but every month, at the end of posting of each unit. At Liaquat Medical College, I had started a system of report by the professors at the end of each posting. Monthly tests were started by the Universities of Pakistan under the Education Reforms Commissions, but have been abandoned due to the unfairness on the part of the teachers. Instead of accepting the unfair teachers, and discarding the admirable system which the world has acclaimed, would it not be better to discard the unfair teachers and maintain the useful system. Monthly tests need not be lengthy and laborious to waste time, but a simple exercise. I use to conduct the monthly test as a demonstration and quiz, where the students asked other students on the subject under examination and marks were given openly before the students.

It is sad to see that our standards in Medical Colleges are fast deteriorating. This is the time to call a halt or we may reach the same fate as befell the followers of *Abu Sinc*, four hundred years after his death. We have hardly any research in our medical colleges and teaching without research is barren and will **PRODUCE** technicians and not progressive thinking doctors!

A medical doctor, who has not learnt how to continue to learn and teach himself will be soon obsolete and harmful, as the progress of medicine is so rapid.

In our country it is sad to note, that after getting the degree of M.B., B.S. our doctors unless they are in academic career seem never to attend any refresher courses which are so essential. Even our Academicians do not seem to go abroad as often as they should to refresh their knowledge. Let us hope the **Young Medicos'** will do something to *improve* the Medical Education.

Before I conclude, I shall like to make a plea to the Y.M.O., that the future of medicine is really dependent on the youth of the country, to heed to what has been said above and start a movement to attain better standards, have better discipline among the students, and respect and support scholastic abilities and not to follow the current trend of rowdyism and to get unfair advantages to pass the examinations. Respect should be for the handsome that handsome does, and not for the cheap leaders who have got to their positions by following wrong methods.



Geriatric Pharmacotherapy

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The process of ageing is still an unsolved riddle of biology. Theories have been put forth from time to time to explain its occurrence, but so far little is known of the processes involved or the mechanism responsible.

Like childhood and adulthood, old age is a normal phase in the life span of an individual; there being no sharp line in between. As the human individual grows old, he develops certain peculiarities, which tend to modify his response to drugs. These peculiarities may be summed up as under:—

1. The skin becomes thin and wasted and the fat underneath is reduced to a meagre quantity or may even disappear.
2. The tissues, in general, tend to resist any change and show less physical adaptability to changes in their environments.
3. The physiological activity and functional reserves of different organs are reduced.
4. The cardio-respiratory reserves are particularly decreased so that the individual now is prone to become breathless on exertion which had no such effect when he was young.
5. The automatic nervous control of the different autonomic organs becomes less efficient.
6. The reaction and composition of blood and tissue fluids becomes

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- easily derangeable and difficult to maintain within the normal range.
7. The rate and extent of absorption of food from the digestive tract, its utilization in the body and excretion of its waste are impaired.

The response of living tissues to drugs is rather interesting. It varies not only from species to species but also from individual to individual within the same species of animals. There are several factors which may modify human response to drugs. Of these the age of the individual and the dose in which a drug is given are rather important.

Taking the factor of age it has been observed that the response to drugs at the two extremes of life is somewhat different from that seen in the young adult. In the elderly subject this is attributed to the peculiarities acquired by him as a result of the ageing process and which have been referred to already.

GENERAL CONSIDERATIONS

Except for the purpose of prophylaxis against nutritional or hormonal deficiencies, the use of drugs in the aged should be avoided as far as possible. This is justified because of the reduced functional reserves and compensatory mechanisms which have in them become less efficient. There is, however, no strict contra-indication to the use of any drug. When needed, they should be used but only after other measures have failed to give relief and that too under strict medical advice. Self medication on hear-say, kind advice from lay friends or advertisements in the lay press should never be resorted to. Since all drugs are potentially harmful over-enthusiasm in their use, when indicated, would amount to overburdening the borderline reserves of the elderly individual, which is not advisable.

The determination of suitable dose of the drug in the elderly can best be achieved by trial and error. One should start with a minimum safe dose and supplement it at proper intervals till the desired effect has set in. To produce stimulation of some function in the elderly subject usually requires a larger dose of the stimulants. Contrary to this, however, they require smaller doses of the sedatives. Like children, older people require relatively smaller doses of narcotics such as opium or morphine, their derivatives and substitutes. Because of the slower rate of absorption and utilization in the elderly, it is imperative that for quick results drugs will have to be given in larger doses, at frequent intervals and even by injection.

Certain drugs like arsenic, mercury and bromides are slowly excreted and tend to produce symptoms of cumulative poisoning. All such drugs should be administered with caution. The same holds good for drugs which upset the reaction and composition of blood and body fluids.

Those drugs which have harmful effects on the body system other than the one they are being used for must be administered carefully. Induction of glaucoma by belladonna group of drugs frequently used to relieve colic and spasm in gastrointestinal and urinary tracts is an example of this nature.

SPECIAL CONSIDERATIONS

Certain categories of drugs require special consideration in the aged. They are:—

Local Applications: Because of their skin becoming thin and wasted, applications meant for local use such as paints, liniments, lotions, ointments and plasters, usually well tolerated in the young, may cause severe irritation and inflammation in the elderly. The recovery from such injury is also rather slow. External applications therefore should be used cautiously and sparingly in them.

The topical use of antihistamines, local anaesthetics, sulphas, penicillin, streptomycin and neomycin in the form of lotions, creams and ointments (with or without corticosteroids) is not advisable because of the great risk of their causing immune dermatitis in the elderly.

Drugs Affecting Digestion: On the basis of symptoms alone, no group of drugs is used more indiscriminately than the one affecting the digestive tract. Enzyme preparations when indicated are often prescribed in inadequate doses. Too much use of alkalies for neutralizing hyper acidity in the stomach can easily upset the normal acid-alkali balance of the blood and tissue fluids which should therefore be used sparingly in the elderly subject.

Occasional use of laxatives in the aged is not harmful but the habitual use of increasingly potent drugs is the most common cause of chronic constipation and should best be avoided. It may also disturb the formation of enzymes and vitamins and also upset water balance and mineral metabolism in the body. All elderly cases complaining of progressive constipation should be investigated for organic disease of the bowels.

In functional cases of constipation correction of the patients' food and fluid intake and retraining him to proper stool habits may be all that is necessary. If needed, bland, nonabsorbable or lubricant purgatives such as isphagul, agar agar or china grass and olive oil may be used which are less disturbing. Liquid Paraffin may be used occasionally. Its habitual use is not advisable as it reduces absorption of fat soluble vitamins and may cause physical discomfort and social embarrassment by leaking per anum. In bed-ridden persons the colon should be emptied by an enema and regular daily evacuation encouraged by lubricant purgatives or glycerin suppositories.

Drugs Depressing the Nervous System: Those commonly used are meant to produce hypnosis or sleep, suppress cough or relieve internal pain. They should be used only when must, in smaller doses and strictly under medical advice. This is because of their tendency to produce drug dependence if taken regularly over long periods. One important precaution about these drugs is that they should not be too readily available for use to the elderly person. Occasionally he may overdose himself by taking additional doses without memory of having taken the drug previously. Addictive analgesics like morphine, its derivatives and substitutes for the relief of internal pain should be used only after a provisional diagnosis of the illness has been made. This is because pain as a symptom has great diagnostic value; its careless abolition may do immense harm by masking the underlying cause of the illness.

Stimulants of Nervous System: Compared to the depressants, stimulants of the nervous system are of limited importance. This is due to the fact that stimulation produced by them is always followed by depression due to fatigue and exhaustion from over activity. Caffeine is a major constituent of tea, coffee and other beverages and causes mental alertness and reduces mental fatigue. A cup of tea or coffee on an average contains 1 to 3 grains of caffeine. Over-indulgence in these beverages, in susceptible persons, leads to palpitation, tachycardia, nervousness and insomnia. Amphetamine is another powerful stimulant. Its prolonged use may cause digestive disturbance, loss of appetite, diarrhoea and addiction. Strychnine has the traditional reputation as nerve tonic particularly in the elderly. Its long usage, however, has shown it to be useless except as a bitter appetizer when taken before meals in the form of a mixture.

Drugs Affecting Mood and Behaviour: The elderly patient may at times need drugs to control his disturbed state of mind. It is difficult to treat such cases with drugs alone as their illness results from a combination of more than one factors—organic, psychological and environmental. The drugs commonly used comprise: tranquillizers (chlorpromazine, reserpine, meprobamate) and anti-depressives (amphetamine, methylphenidate, imipramine, iproniazid, nilamide). To what extent they are useful is doubtful but they may seriously damage liver and blood formation and produce parkinsonism, drug dependence and serious skin eruptions.

Autonomic Drugs: Adrenergic stimulants like adrenaline, ephedrine and amphetamine should be given with caution in the elderly who frequently suffer from various grades of myocardial degeneration, hypertension and impaired vascular states. In the presence of enlarged prostate these drugs, through their constrictor action on sphincter vesicae, may also precipitate attacks of urinary retention.

The cardiac action of the antiasthmatic Isoprenaline may have serious

consequences in the elderly asthmatics. In them the use of Salbutamol, a new selective Beta adrenergic stimulant with no effect on the heart is worth the trial for the relief of broncho-spasm. No elderly patient should receive an anti-cholinergic drug like the belladonna alkaloids without precautions against the risks of precipitating acute glaucoma, retention of urine and toxic psychoses. Pilocarpine and Physostigmine are specific antidotes in these cases. When belladonna alkaloids are contra-indicated, use synthetic substitutes like Banthine and Pro-banthine.

Cardiac Drugs: The elderly usually show marked dominance of vagal tone and are therefore more susceptible to the action of cardiac drugs like digitalis and quinidine which should therefore be given with caution. The toxicity of digitalis is also enhanced from the potassium depletion produced by thiazide diuretics (hydrochlorothiazide, hydroflumethiazide, bendrofluazide) given for their hypotensive action along with.

Diuretics: The thiazide diuretics aggravate diabetes mellitus and also precipitate attacks of acute gout in those suffering from these diseases which should be kept in mind while using them in the elderly subject.

The use of frusemide and ethacrynic acid as more powerful diuretics than the thiazide group is not without danger in the elderly. The sudden massive diuresis produced by them may cause hypotension, circulatory collapse, nitrogen retention and hypokalaemic alkalosis. Acute urinary retention may occur in those suffering from prostatic enlargement. Frusemide may aggravate diabetes mellitus and both frusemide and ethacrynic acid may precipitate acute gout.

Anti-Infectives: Those commonly used are the sulpha drugs and the various antibiotics. Adverse effects from these drugs appear rather easily in the elderly. Their indiscriminate use can result in more harm than good. These drugs should therefore be used strictly under medical advice and with clear and definite indications.

Cumulative toxic effects are produced rather easily by the sulpha drugs which should therefore be given in smaller doses and with adequate fluid intake. Give supplements of Vit. K and B complex alongwith while using them for intestinal chemotherapy. Also avoid the use of liquid paraffin in these cases which interferes in their action by hindering their free admixture with intestinal contents.

The use of sulphonamides is contra-indicated in the elderly diabetic controlled by tolbutamide or similar drugs given orally. This is due to their inducing in them severe hypoglycemia by displacing tolbutamide like drugs from their binding site on the plasma proteins.

The wide-spectrum antibiotics like tetracyclines and chloramphenicol are more prone to cause gastro-intestinal disturbances in the elderly. The use of antacids containing calcium or aluminium should be avoided along with tetracyclines as these ions hinder their absorption.

The combination of trimethoprim and sulphamethoxazole (septran, bactrim) is a most promising new product recommended for the treatment of urinary tract infections and acute exacerbations of chronic bronchitis. Its wide range of anti-infective action and low toxicity make it a valuable drug in geriatric pharmacotherapy. The combination, however, should not be given to those sensitive to sulphonamides.

Anticoagulants: These drugs find greater use in the elderly who are more prone to suffer from vascular accidents. They should, however, be used in smaller doses and with due precaution in the presence of liver and kidney disease, haemorrhagic diathesis and gastro-intestinal ulceration.

Phenylbutazone displaces Warfarin from its binding site on the plasma proteins which may upset anti-coagulant control resulting in haemorrhage. Naturally occurring Vit. K₁, on the other hand exhibits competitive antagonism at the receptive site against Warfarin and other Coumarin anticoagulants. Such drug interactions should be kept in mind during anticoagulant therapy in the elderly.

Vitamins: The elderly may suffer from vitamin deficiency even in the absence of clear cut symptoms. This may be due to their increased requirements or reduced absorption and utilization in the body. Defective mastication, reduction of quantity and acidity of gastric juice, decreased secretion of digestive enzymes and changes in the circulatory system, either alone or in combination, are the usual contributory factors. In addition to adequate diet the elderly requires supplements of vitamin combinations obtained from reliable manufactures. It is important to remember that vitamins can be poisonous if given long enough in excessive doses. Overdosage can even be fatal. Vitamin therapy has had a trial in almost every disease with unknown cause or unsatisfactory treatment. The elderly should never believe in any claim that vitamins can correct or check the process of ageing.

Hormones: The extent to which hormones of the adrenal and sex glands are being abused in daily practice reflects our ignorance of the subject.

Corticosteroids are known to produce diabetes and psychosis, hypertension and osteoporosis, oedema and cardiac failure, perforating ulcers, fatal thrombosis and masked fatal infections. They should therefore not be given in the elderly subject without full justification. Just as these are powerful weapons to do good, they are powerful enough to do harm also. One should not prescribe them

lightly. They should not be given in larger doses nor for a day longer than absolutely necessary. Their administration should not be stopped abruptly; rather it should be tapered off and withdrawn gradually by progressive reduction of the daily dosage. This would prevent the occurrence of "rebound" effects.

The sex hormones are useful in relieving symptoms of their deficiency in the body such as those of the climacteric or change of life. They are also useful in certain forms of cancer in the elderly. In a modified form (oxymetholone, nandrolone) they may be used for their Anabolic or flesh forming action in the lean and waisting elderly.

Sex hormones are one of the most misused drugs. That they can rejuvenate or restore the faded vigour and figure in the elderly is far from true. The elderly subject, should accept the shortcomings of his age with dignity and grace. He should realize that he is not as young as he was.

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Acne Vulgaris

*Dr. Nusrat Ali Shaikh
F.R.C.P. (Edin)*

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Acne Vulgaris is a Chronic inflammatory disease of the sebaceous glands of the face, back and chest, in which there is excessive secretion of sebum which can not escape from the Pilo-Sebaceous follicles due to Hyperkeratotic plugging of their orifices. It is characterized by comedones, papules, pustules, nodules and cysts, and may produce unsightly scarring.

Acne Vulgaris is one of the commonest of the Skin Diseases. The number of cases taking treatment in hospitals is no index of its incidence, because most individuals who suffer from this condition do not take any treatment.

AETIOLOGY

The role of androgenic hormones in the causation of Acne in both sexes has been generally accepted. In the females the androgens are derived from the Suprarenals. The progesterone secreted by the Corpus Luteum in the luteinizing stage of the menstrual cycle has a chemical composition similar to that of the androgens, into which it can be converted by the ovarian tissues. This may account for the menstrual aggravation of Acne in some women.

Androgens produce a thickening of the stratum corneum resulting in a blockage of the opening of Pilo-Sebaceous follicles.

Although androgenic stimulation may increase sebum production which probably may also be qualitatively different, it is still not definite that Acne may be produced by an increase in the quantity of the sebum alone. It is the retention of sebum that produces the comedo, which is the elementary lesion of Acne and acts as a plug at the orifice of the Sebaceous Follicle. An oily Seborrhoeic condition, however, often precedes or accompanies Acne. There is also a possible hereditary factor. Probably the pilosebaceous glands are inherently sensitive to the effect of androgens. This is suggested by a family history of Acne in a large number of patients.

PATHOLOGY

There is intrafollicular hyperkeratosis that first appears in the excretory ducts of the sebaceous glands. The Keratin collects in the follicular lumen and after combining with sebum forms the comedo. As a result of oxidation this keratin plug becomes dark brown or black. The underlying Sebaceous gland continues to secrete until, as a result of pressure of its own contents it becomes atrophic.

CLINICAL FEATURES

Acne Vulgaris involves the face, back and chest. The Skin is usually greasy, coarse and muddy in appearance. On the cheeks, forehead and back one usually sees multiform lesions, varying from a comedo to pustules and cysts. Inflammatory reaction may be completely absent but sometimes the lesions are acutely inflamed and painful. As a rule all varieties of Acne lesions are usually present in the same patient at the same time. In a case of some duration, these include Comedones or Blackheads, Papules, Pustules, Nodules, Cystic lesions and pitted scars.

CLINICAL TYPES

There are several varieties of Acne. It should however be remembered that this division into various types is purely artificial, because these clinical types may overlap one another in almost unlimited combinations:

(a) COMEDO: In this variety the eruption is almost entirely composed of blackheads. The skin is quite coarse and oily. Comedones are also sometimes seen aggregated in small groups on the face, back and chest of infants and children. These are called grouped comedones and may be the result of oil massages.

(b) ACNE PAPULOSA: In this type, the skin of the face is diffusely inflamed and has large inflamed comedones and a profuse papular type of eruption.

(c) ACNE PUSTULOSA: In this type, small superficial pustular lesions are present and the comedones are relatively very few in number. This variety occurs mostly in young girls with a fair complexion, and is produced by infection with staphylococcus.

(d) ACNE CYSTICA: In this variety of Acne, cysts are formed as a result of tissue reaction around small firm deposits of sebum, which are dealt with by the skin as foreign bodies. The cysts usually contain a Jelly like blood tinged fluid.

(e) ACNE CONGLOBATA: In this variety, the apocrine glands are also involved. Papules and pustules are accompanied by large indolent abscesses, cysts, and connecting sinuses which heal very slowly and at times leave keloidal scars. This type mostly affects the axillae, back, buttocks, perineum and the thighs.

(f) ACNE EXCORICE: This is basically a neurosis, mainly occurring in young women who squeeze, scratch or peel any sort of lesion appearing on the face, resulting in even a greater disfiguring scar formation and pigmentation.

TREATMENT.

There is no permanent cure for Acne Vulgaris. The aim of treatment is to keep the eruption under control until natural remission takes place. It is used in preventing suppuration and disfiguring scar formation. This fact should be explained to the patient, that Acne requires almost a continuous treatment of some sort.

Anti-Infective Drugs:—Tetracycline is the antibiotic usually used in Acne Vulgaris. The usual recommended dose is 250 mgm 4 times a day for 4 days; 250 mgm 3 times a day for 4 days; 250 mgm twice a day for one week and there after 250 mgm once a day for 6-8 weeks, but in this dosage of one capsule a day it may be continued for many months without its loss of effectiveness. When tetracycline does not prove effective, erythromycine or other antibacterial drugs can be substituted. Tetracycline therapy has been found most useful in pustular and the cystic varieties of Acne. The exact mechanism of its action is still not understood.

Hormones:—Although severe pustular and cystic Acne in young men can often be helped by oestrogens, it is best not to use them in male patients. Oestrogens are however helpful in the management of premenstrual aggravation of acne in women. Stilboestrol 0.5 mgm is given daily for two weeks before the commencement of the periods. Treatment of Acne in older women has been in recent years done by the use of oral contraceptives. Norethynodrel and similar products have been used to inhibit the secretion of Gonadotrophic hormone by the anterior pituitary and thus suppress ovulation. In the absence of ovulation no Corpus Luteum is formed and therefore no progesterone.

Although the anovulatory action of the oral contraceptives is reliable, the anti-Acne effects are less dependable. In fact acne usually gets most during the first few months of such therapy. This may be due to the progesterone content of these medicines.

Corticosteroids:—It is paradoxical that these drugs which by themselves are known to produce acne can be used with advantage in certain varieties of the disease. Cortisone can produce a rapid improvement in the highly inflammatory stages of Acne called *pyoderma faciale*. It should however be remembered that in a chronic disease like Acne, corticosteroids when once started are difficult to withdraw because the patients virtually become dependant on them. This, therefore, warrants a proper selection of cases for this treatment with this drug.

Vitamin A:—This vitamin has been used in the treatment of Acne for many years. There is however, no uniformity of views about its effectiveness. Recently Vitamin A acid has been used topically and it is believed that it causes the formation of a softer form of keratin and therefore prevents comedone formation. Its application is however associated with acute local inflammatory reaction and may be fairly uncomfortable for some persons.

Vaccines:—Vaccine therapy is occasionally of value in persistent Pustular Acne, if used in conjunction with other more reliable treatments. An Autogenous vaccine should always be used.

Diet:—Views on diet restriction are very controversial. It is customary to avoid chocolates, nuts and ice-cream. The intake of fried food, pastry, candy, cream & butter should also be reduced considerably. Similarly highly seasoned food and excess of starches should be avoided.

LOCAL TREATMENT.

The aim of local therapy in Acne Vulgaris is (a) to reduce excessive Sebaceous secretion (b) to remove comedones, and (c) to control suppuration. Sulphur is the most useful of the locally applied medicaments. It has a marked power of lessening the secretion of sebum and, therefore, causes exfoliation of the surface layers of the epidermis, thereby removing the comedones. It is also mildly antiseptic. Sulphur can be incorporated in a lotion, emulsion or paste. 2-4% is a reasonable strength of a sulphur preparation to start with. This may be gradually increased to 10-12%. Sulphur may be incorporated in calamine lotion. The formula I generally use is:—

Sulphur pptd gr. 10	2%
Hydrated Aluminium Hydroxide gr. 10	2%
Calamine Lotion ad ozi. to	100%

Another useful preparation is *Duhring's Lotion*. Its strength may be altered according to the need of the patient.

Zinc Sulphate gr. 10	2%
Sulphurated potash gr. 10	2%
Camphor water ad ozi to	100%

Most cases respond well to the above local applications. For the few who are resistant to the above treatment I advise the application of *Kummerfeld's Lotion*.

Sulphur pptd	dr. i	12%
Pulv. Camphorae	dr. 3	1/2%
Pulv. Tragacanth	gr. 5	1%
Aqua calcis	dr. iv.	50%
Aquam	ad to oz. i ad to	100%

Pastes are more efficient as peeling agents. These are however quite messy to apply and cannot, therefore, be used during the daytime. Sulphur and resorcin paste (B.P.C.) is a good preparation from this category.

In severe pustular and cystic Acne the use of soaps containing Hexachlorophene is very beneficial. The purpose is to reduce staphylococcal inhabitation of the skin, to the minimum. Such soaps have to be used for a long time.

Surgical Treatment: It is rarely required in Acne. Cysts usually resolve spontaneously or with the treatment outlined above. If incision becomes necessary it should be done with a tenotomy knife. After thorough drainage the cavity may be swabbed with carbolic acid. Dermabrasion or Skin planing introduced for removal of pitted scars of Acne Vulgaris several years ago is not very widely used now.

Ultraviolet Light: This is given in 2nd degree erythema. Doses once a week and causes a satisfactory peeling of the skin. It should be continued for 2-3 months. Treatment with ultraviolet rays should always be followed by the usual applications of sulphur preparation.

Slush Treatment: Freezing of the skin also causes hyperaemia and peeling, and is useful in pustular and cystic Acne. Carbon dioxide snow and Acetone Slush is applied for 10-15 seconds once a week. This treatment causes some inflammatory reaction and oedema, which is followed by desquamation.

X-Ray Therapy: This form of treatment has been recommended by various dermatologists for pustular and cystic varieties of Acne and acts by reducing the activity and size of the Sebaceous glands. 100-200 r is given every 2 weeks for two months. X-Ray therapy of Acne is withheld until other available methods have been used and found not very helpful.



Hypochondriasis*

Lt. Col. M. B. Azami, M.B., B.S., F.R.C.P.

The word '*hypochondriasis*' was coined to denote certain nervous abdominal symptoms. This word could have had two origins; one from the Latin *Hypochondria*, meaning abdomen, which was considered to be the seat of disease. The second from the Greek, where *hypo* and *chondras* are two different words and stand for 'under the cartilage'. The Latin origin is probably more correct and certainly in keeping with the spirit of the disease then described. It is generally said to have originated in the eighteenth century but the earliest reference to this condition occurs in the Riverias' '*Practice of Physick*' published in 1661; in which a whole chapter under the diseases of spleen appears as '*Hypochondriac Melancholy*'.

It is interesting to note that physicians three hundred years ago knew the true nature of the disease and its association with melancholy.

Hypochondriasis is difficult to define. Kenyon, to whom I shall refer later in greater detail has not attempted to define it. Gross, Slater and Roth (in their book of *Clinical Psychiatry*) have gone into great details about the mechanics of the disease without actually defining the term. Most of the definitions suffer from the disadvantage of emphasising a single aspect of the disease. I think, the best definition I have come across is that '*it is a settled conviction of physical disease in the absence of any evidence thereof*'. (Henderson and Gillespin, 1962). This definition also suffers from the defect of emphasising the predominantly delusional aspect of the disease. However we all know, what hypochondriasis means. It is said that a hypochondriac enjoys his bad health and Hutchison has said that 'the hypochondriac collects and accumulates symptoms just as other persons may collect stamps, coins or antique furniture.'

* Based on a Lecture delivered at the Annual Function of the P.M.A. Karachi, in 1969.

A hypochondriac has no organic disease but he worries lest he misses something serious. He never tires of repeating his symptoms (or else symptoms might continually change). He is a difficult patient. He never seems to get any relief with any treatment. The relief if obtained is very short lived. It is a frustrating situation which has a lot in common with another situation between the doctor and a geriatric patient.

Most of the physicians agree that hypochondriasis cannot be given the status of an independent disease and that it is always a part of a larger disease; that it is a symptom of some other mental disorder.

Kenyon in 1964, conducted a study of 512 patients seen in the years 1951-64, the majority of these patients were inpatients and a primary diagnosis was made in 301 patients and hypochondriasis was associated with some other mental abnormality in 211 patients. There were a large number of features which were common to both groups of patients, for instance; equal sex distribution, peak age of 30-50 yrs.; similar distribution of complaints in head, neck, abdomen and chest, the three predominant sites of origin of the complaints; similar prognosis, similar past psychiatric histories and absence of differences in precipitating factors even in those patients in whom primary diagnosis was made. Nearly one-third of the patients had associated mental abnormalities particularly affective disorders, organic states, personality disorders, and hysteria. He concluded that 'Hypochondriasis is always a part of another syndrome usually an affective one.' Even the prognosis was similar in both the groups and only 5 to 7% recovered, whereas the majority retained their symptoms in a major or minor form.

The majority of hypochondriacs do not reach the consultant. They are content to discuss their problems with friends, family members and their family doctors. They do become a burden to their doctors, but it is interesting to note that most of the relatives of hypochondriacs are themselves suffering from either hypochondriasis or some other similar personality disorders. They become the victims of commercial exploitation by unscrupulous quacks; therefore, it is important that hypochondriasis be recognised by the practitioners who sees the patient first.

Alvarez in his book 'The Neurosis' mentions about the 'poor inherited genes' of the hypochondriac family. The majority of members of the family carry the same personality pattern. Hypochondriacs remaining generally dissatisfied with the verdict of the doctors, may go from one doctor to another and from one clinic to another or from one hospital to another. He is a roving or a peripatetic hypochondriac.

Hypochondriasis, essentially concerns with an abnormal preoccupation with a particular organ or function. It is a disturbance of body image or body

feeling. Normal sensations which are ignored by the body and are not allowed to reach the level of consciousness become a source of constant discomfort. To quote an example, the sensation of fullness of the stomach is felt by the majority of people at sometime or another but when this becomes a constant and perhaps the only preoccupation and a source of mental discomfort, results for the sufferer can be disastrous. Neurocirculatory asthenia or the 'soldiers' Heart' is another example that can be cited. Here there is a perpetual preoccupation with the working of the heart.

Apart from constitutional factors, environmental factors play a great part. Medical students pass through a minor stage of hypochondriasis. Old age seems to intensify the problem. There are many reasons for this, there is a shift of interest from job to self or from others to self; it may be partly an atonement of guilt. Sense of anxiety seems to get localised in old people to an organ or to a body function. (Boas and Rockless, 1961). Arteriosclerosis may have something to do with it. Some of the old psychotics may present with most grotesque and bizarre symptoms. Colonic functions may assume a great importance in the lives of old people and this is readily exploited on a vast commercial basis.

A large part of hypochondriasis may be iatrogenic, and I personally believe, that the health education given in the lay press like the weekly columns of medicine in various periodicals and newspapers are creating untold problems of hypochondriasis on a national basis.

As said before, hypochondriasis is always a part of a larger psychiatric canvas. As a symptom it may occur in hysteria, as a part of chronic anxiety state, when it may be difficult to diagnose. It may also be a part of an obsessional personality disorder; in fact, obsessional people, because of their intense rigidity and inflexibility of mind are very fertile in their imagination and ruminations and form ideal subjects for hypochondriases. But of all the conditions the most important is to be able to recognise hypochondriases as a part of depression or schizophrenia. The greatest contribution of psychiatry has been to focus attention on depression as a cause of hypochondriases. It is all the more important now because of the success of antidepressant drugs. A 'constant band of pressure round the head' so often seen in the office of neurologists has now yielded to antidepressant drugs. This is an example of 'physical localisation of depression'. Weiss and English (1949) stated that in the early development of schizophrenia there may be a hypochondriacal phase in which the patient complains of many discomforts. A schizophrenic is more vague in his symptoms and may use peculiar language; for instance he may describe his abdominal discomfort as if a snake or a tape worm was moving about in his stomach. He will also complain of a great many other symptoms, like constipation, belching, nausea, vomiting or anorexia. I have already commented that involutional depression may assume a delusional form. Constipation may be interpreted as total blockage or rotting of the intestines.

Hypochondriasis may be the only positive symptom in schizophrenia particularly in its early stages when changes of affect may not be apparent.

It is futile to argue or convince these patients about the nature of their illness. It is best to listen to them with patience or without making any comments. Comments can be interpreted in a wrong way or the patient may begin to believe more intensely in the nature of his complaints. Unkind remarks will only drive the patients to someone else and ultimately into unscrupulous hands. Alvarez mentions a patient who refused to be convinced that he had no cancer of the stomach even after being shown his healthy stomach after laparotomy done under local anaesthesia.

It must however, be said to the credit of some of these people that apart from their health preoccupation, they are shrewd, intelligent and sensible, because of the reasons of their personality pattern, some of them may even border on genius. At least one good example of such a case was Charles Darwin who was a confirmed case of Hypochondriasis all his life.

Let me summarise, by stating that hypochondriasis is a symptom complex arising without any basis of detectable organic disease. It is not a disease in itself but almost always a part of hysteria, chronic anxiety state, obsessional personality disorders, involuntal depression; but the most important is to be able to recognise hypochondriasis as the earliest manifestation of endogenous depression or schizophrenia when changes in affect and emotional blankness are not yet visible. It is important to save these patients from falling into the hands of exploiters of human misery. It is still more important now because the last and most important category can be effectively treated with the modern drugs of psychiatry.

A young mother paying a visit to her doctor made no attempt to restrain her five-year old son who was ransacking an adjoining room. But an extra loud clatter of bottles did prompt her to say "I hope Doctor, You don't mind Billy being in there!"

"No", said the doctor calmly. "He'll be quiet in a moment when he gets to the poisons".



DRUG HAZARDS

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Drug is a chemical agent which affects the living processes. No drug is considered free of toxic effects. Since the introduction of drugs of greater and broader efficacy, the incidence of drug hazards has increased and is now considered the most critical aspect of modern therapeutics.

Drug hazards may be the result of individual variations, generalized actions of drugs, extension of desired effects and direct toxic actions on the body tissues and functions. Some of these actions appear promptly but others may develop after a prolonged use.

1. *Individual Variations:* Drug intolerance and idiosyncrasy may be shown by certain individuals. These reactions cannot be anticipated with initial dose or in the early course of therapy. Idiosyncrasy is generally due to genetic defects as a result of which there is qualitative abnormal response to the drug. Intolerance on the other hand shows quantitative deviation from the anticipated response with increase in the normal pharmacological actions of the drug.

2. *Drug Allergy:* It is now becoming a problem in the use of certain drugs. The allergic reactions represent immunological response to foreign pro-

teins which act as antigens, or to simple compounds which serve as haptens and combine with proteins to form immunological complexes in the body. The reaction may occur immediately after administration of drug due to previous contact of the patient with the drug; it usually occurs after a period in which sensitization and antibody formation takes place.

Allergic reactions are most common following local application to the skin or mucous membrane, somewhat less frequent following parenteral administration and least common after the oral ingestion.

Drug allergy may take many forms. Skin reactions extend from mild rash to severe exfoliative dermatitis, those of blood vessels range, from acute urticaria and angioedema to severe arteritis. Drug fever closely resembles serum sickness. Rhinitis asthma and even anaphylactic shock are other formations of allergic responses. Hepatocellular damage, cholestatic jaundice, renal tubular necrosis depression of haematopoietic functions, photosensitivity are other manifestations of drug allergy.

The drugs producing allergic reactions include hydralazine, penicillin trimethadine, sulphonamides, procainamide etc. Drugs having amine group in their structure are generally responsible for allergic reactions. Whether these drugs trigger the mechanism for an abnormal antigen-antibody reaction or act as haptens and combine with proteins in the host is not yet known.

3. *Direct toxic actions of the drug or drug toxicity* is an expected pharmacological reaction which will occur in large majority of patients under similar conditions. For example psychosis occurs in bromisim and deafness is induced by streptomycin.

The toxic actions of drugs may be exhibited primarily in one specific organ, but several organs are usually affected. It is often difficult in a specific instance to differentiate an allergic response from those due to direct toxic actions of the drug. The most serious toxic reactions to drugs involve such vital organs as the bone marrow, liver, kidney, brain and gastrointestinal tract, but no organ or tissue is immune.

Blood dyscrasias manifested by leucopenia, granulocytopenia, aplastic anaemia, haemolytic anaemia, thrombocytopenia may be the allergic reactions, but in certain cases are believed to result from direct toxic effects of drugs on bone marrow.

Drugs are mostly concentrated in the liver and kidney, therefore, damage to these organs by direct toxic action of drug is not uncommon. Hepatotoxicity and nephrotoxicity may also occur as a form of drug allergy.

Hepatocellular toxicity is produced by halogenated hydrocarbons and others drugs. An intrahepatic cholestasis resembling, obstructive jaundice is produced by phenothiazines and certain steroids.

Glomerulotubular damage may be produced by several antibiotics and intra-renal precipitation of sulphonamides is major cause of nephrotoxicity of these agents.

The possibility that drugs administered during pregnancy might induce congenital malformation in humans has been ignored till the *Thalidomide tragedy*. Drugs harmless to mothers may produce effects which are harmful to the foetus. All unnecessary medication must be avoided during pregnancy. Since pregnancy is often not diagnosed at the time of greatest vulnerability of the foetus, all drugs not known to be reasonably safe on basis of long usage should be avoided by women of child bearing age.

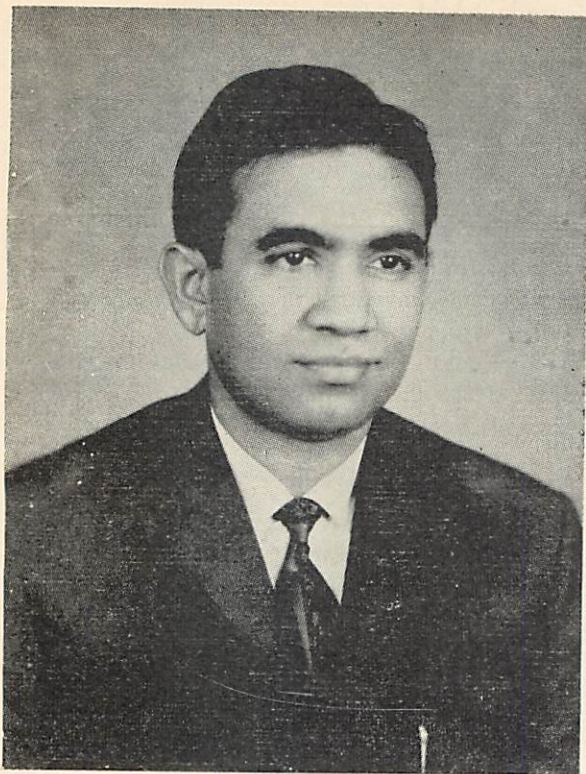
4. *Extension desired effects*: Any drug that alters mood or behaviour is likely to be abused and is potentially capable producing drug dependence upon repeated administration. Opioides, barbiturates, other sedative hypnotics and alcohol, as well as amphetamine, cocaine and other psychopharmacological agents are liable to produce these effects.

5. *Generalized actions*: Drug may act on more than one organ or function whereas its action may be desired on one of these only. The actions other than the desired action are generally not wanted and are therefore named as '**Undesirable**' or '**Side effects**'. Atropine and other belladonna alkaloids may be administered to relieve smooth muscle spasm, but mydriasis, dryness of mouth and urinary obstruction would be the side effects. Central nervous system depression with most of antihistamine drugs is another example. Broad spectrum antibiotics are liable to change the normal intestinal flora and produce gastrointestinal disturbances. More potent diuretics introduced recently cause potassium deficiency in the body.

This brief account shows that the drugs are a double edged weapon and in the hands of an ignorant people who are not trained in allopathic system of medicine and the qualified person who do not keep their knowledge of pharmacology upto date, then the injudicious use is liable to produce disaster instead of benefit.



The fear of speaking in public may be cured by one magic word: Don't.



A LETTER

Dr. A. Ghaffar Billoo.

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(GLASG). M.R.C.P. (ED).
M.R.C.P. (GLASG).*

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Dear Young Medicos,

I am sure your Publication will receive many good articles on professional as well as non-professional topics, from students and teachers alike; From others you will get the "traditional messages" of good wishes on the occasion of publication.

But I am sorry, that I am good at neither, which means that if I have to write an article or message, I will have to steal or borrow — Not good for a healthy conscious. So let us get down to business quickly; Yes, in the first place why a seperate organisation of students in the same institution and not one or two but a confusing numbers of them? The basis of formation being for some ideological, political, economic and for others linguistic, cultural, educational and academic—Oh, I beg your pardon the last two are only intruders. No wonder one happens to see college premises decorated with number of notice boards belonging to different organisations, each of them showering praises for their leaders' achievements in any walk of life (except ofcourse academic).

Looking back about 17 years, when I had joined the medical college, there were only three students organisation viz. (1) YMO (2) NSF (3) Jamiat-e-

Tulba. One belonging only to the medico's whereas, the other two encompassed the medical as well as non-medical students all over Pakistan. Their activities used to be confined to the election days, only to promote their candidates with tall promises—This generates healthy competition and should be encouraged. Now the number of students groups has swelled so much, that one finds it difficult to keep pace with them. Sometimes, I wonder if it is the medical science which is advancing so fast or the student groups.

What is more surprising is the recent emergence of several groups, on the *linguistic* and *provincial* basis. This I think needs to be *discouraged*. Now, I can feel some readers protesting because linguistic and provincial groups are formed to bring to the light and maintain the social and cultural values of different areas of Pakistan. I must say the cause is noble and everybody should endorse it, but does the **purpose** for which the groups are formed remain the same in practise? (as laid down in the file at the time of formation of the group). I am positive, that it widens the gulf among the various groups, rather than bring them together on one platform to solve the problems of the students; With so many parties, each would be interested in looking after their own benefit with exclusion of the rest of the students. This would be rather selfish approach, but in the long run such tendencies are likely to creep in any organisation, after all it is human nature.

Y.M.O., has now decided to bring out its own Annual magazine. I think it is a matter of pleasure and pride to be able to bring out a successful publication, but why a separate magazine when D.M.C. union is producing Dowlite regularly every year? Anybody will testify the fact that this year's Dowlite has been fatter than any previous issues, possibly raising the voice and opinion of most of the people who wanted to come forward.

The next thing will be a publication from N.S.F. and Jamiat and then there would be processions of publications (I hope not!) Next thing to follow will be a social evening or a variety programme again organised by each group separately. Publication and organisation of variety programmes all need finances and talent. We all know how limited our financial resources are. I can feel some enthusiastic students saying loudly "Oh! funds are no problem, we can raise the money from ads and donations." No doubt about that, but it does need time and effort. *What about talents?* I think, I should refrain from commenting on this, because I am sure you are all very capable in judging the talents that the students community in Pakistan has and ofcourse don't we see the fantastic results of the Professional examinations! Please do not protest yet. Do you still insist that we have enough funds and talents? Fine, we shall settle for that for the moment.

Now, since I have not been able to dissuade you from your goal let me try some more weapons, since we have agreed upon our capability to produce enough funds and talents, is it necessary that Y.M.O. or for that matter, any other

students organisation should produce some thing under their own banner? Could these not be utilized in a manner such as to benefit most of the students? without any discretion e.g. by the union itself which really belongs to all the students?

Also, many people studying in the medical college and university need financial *help* during their educational career. If some thing could be done for them, then this would be a permanent contribution. I know Lending Library is doing a great service by providing books to the needy students, but a lot more could be done. I also don't see at the moment or in the near future any group being formed on educational and academic or on scientific basis. Ofcourse, this will need real talent and no money. One thing is certain, this sort of organization will definitely push up our already 'fantastic' examination results. Or there is another suggestion, what about organising a *Voluntary Body of students* who could teach the adults in the different centres, for couple of hours in a week. This sort of organisation could incorporate the students from many other colleges and university. Alternatively, such a voluntary body formed mainly of senior medical students could impart health education to the lay people. Needless to say, that in our country lack of **health education** and **poverty** are the two greatest determinents of *morbidity* and *mortality*. From this you can imagine, the size of the contribution you can make by imparting the education to the people.

My armamentarium is now getting exhausted, so I better finish here. So, lastly good luck in your efforts.

A. Ghaffar Billoo

Silence is a mighty weapon which so few of us are strong enough to wield.



Iron Deficiency Anaemia

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Iron deficiency anaemia is the commonest type of anaemia met within clinical practice. It occurs at all ages, but is especially common in women of child bearing age, in whom it is an important cause of chronic ill health and fatigue. Iron deficiency anaemia like fever and headache is a symptomatic state and is always secondary to some underlying cause, correction of which is an essential part of treatment.

Body is normally in a state of positive iron balance. When a negative iron balance occurs due either to blood loss, increased requirements or impaired absorption; The deficit is made good by iron mobilisation from the tissue stores and an adequate supply of iron for haemoglobin synthesis is maintained. It is only when the tissue stores are exhausted that the supply of iron to the marrow for haemoglobin synthesis becomes inadequate and hypochromic anaemia develops. Thus the first phase of iron deficiency anaemia is the depletion of iron stores and subsequently anaemia develops.

There are various factors which lead to the production of iron deficiency anaemia:

- (a) *Inadequate intake of iron to meet the physiological requirements:*

This is most likely to arise.

- i) during pregnancy due to anorexia. In general, inadequate intake is contributing factor rather than a sole aetiological factor and seldom causes iron deficiency anaemia except in the presence

of increased physiological requirements or chronic haemorrhage. Such a state is encountered in women in the reproduction period, if they have borne several children in quick succession or have excessive menstrual blood loss or have a poor appetite or cannot afford to buy sufficient of the foods that are rich in iron.

- ii) It is encountered in babies who have been born prematurely or have started life with poor body stores of iron and in infants, in whom there has been delay in weaning from a milk diet to mixed feeding with iron containing foods. Iron content of milk is very low. During the period of growth there is a progressive increase in the blood volume and consequently in the total amount of haemoglobin in the body. This results in increased demand for iron by the marrow for haemoglobin synthesis. Besides, there is additional demand for myoglobin synthesis in the progressively increasing muscle mass of the body. Growth is most rapid from 6-24 months, and this is the time of the greatest incidence of iron deficiency anaemia in the young children.
 - iii) It may also occur in adults due to economic circumstances dietary foods etc.
 - iv) Iron deficiency occurs in elderly people who pay little attention to their diet and eat very little meat which is the main source of iron in the normal diet.
- (b) *Inadequate absorption*: Iron may be taken in adequate amounts but may not be absorbed in sufficient quantities. A long standing impairment of absorption may result from achlorhydria, gastrectomy or gastroenterostomy, idiopathic steatorrhoea, tropical sprue or coeliac disease.
- (c) *Chronic blood loss*: When hypochromic anaemia occurs in the absence of the above factors and one is confronted with no obvious cause, the most likely explanation is that the patient has chronic occult bleeding from the alimentary tract. This is especially true in men and in women in menopause who have no physiological blood loss like menstruation. Since possible lesions include early malignancy, it is always an urgent matter to find the cause. Other factors, may include conditions like haemorrhoids, hereditary haemorrhagic telangiectasia, peptic ulcer, ulcerative colitis.

Iron has been used as a therapeutic agent from the earliest times. Iron filings steeped in Rheinisch wine were employed by Sydenheim in chlorosis, even before iron was known to be present in blood. More than 100 years ago Pierre Bland reported that this famous "antichlorotique pill" containing ferrous sulphate and potassium bicarbonate "never foundered" in his hands. Many physicians throughout the world remained doubtful about the usefulness of the supplements

in anaemia until about 40 years ago. Since then the value of iron therapy has been clearly established, and a number of effective iron containing preparations for oral use have been developed. While a diet adequate in iron is of value in the prevention of iron deficiency, dietary measures alone are never sufficient once anaemia has developed.

The following points **Must** be remembered while treating iron deficiency anaemias.

(1) Before a patient's haemoglobin level begins to fall the body iron stores are already seriously depleted and this deficit will not be corrected unless iron therapy is continued for several weeks, after the haemoglobin and the blood picture has been restored to normal. It is the haemoglobin which begins to rise first and after it has returned to normal only then the iron stores can be replenished.

(2) The correction of causative factor is of paramount importance. This varies from correction of dietary faults to major surgical operations to arrest the pathological blood loss.

(3) Iron should be given alone: The responses to iron therapy, supplies important confirmatory evidence of the diagnosis of iron deficiency anaemia. For this reason iron should be administered alone and not with other haematinics. Thus other oral preparations containing supplements of other substances like vitamin B₁₂, folic acid, liver extract & B vitamins should be avoided. There is no evidence that their supplements are of value in iron deficiency anaemia, and they considerably increase the cost of treatment.

(4) Ferrous Sulphate is the preparation of *choice* in most patients. It contains a much higher proportion of elemental iron which is efficiently absorbed and is the cheapest of all the ferrous salts. Some patients are troubled by gastrointestinal irritation such as nausea, epigastric discomfort, constipation or diarrhoea when treated with a preparation of iron. This is uncommon if the iron preparation is taken after meals, and if the patient is reassured by the doctor. There is good evidence from controlled therapeutic trials that undesirable side-effects from iron therapy are frequently psychological in origin. The elemental iron content of 100 mg of various iron salts is as follow:

Ferrous sulphate	31.5 mg.
Ferrous gluconate	12.0 mg.
Ferrous succinate	10.8 mg.
Ferrous fumerate	31.5 mg.

From the above it is evident that Ferrous sulphate and fumerate contains three times as much elemental iron as Ferrous gluconate and succinate and the daily dose should supply 100-200 mg., of elemental iron.

5) The only substance which is known to aid the absorption of iron is Ascorbic acid. This is because of its action as a reducing agent, Ferrous ions being better absorbed than Ferric. There is however, no need to prescribe the tablets of ascorbic acid provided the patient is taking a good mixed diet unless signs of scurvy are present.

Davidson and his colleagues carried out an investigation in 1958, and proved that the Drug Bill of the National Health Service in England might be reduced by several hundred thousand pounds annually, if this practice was followed. This could also be done in the Government sponsored hospitals in Pakistan.

(6) When the iron deficiency is due to chronic blood loss which cannot be controlled a maintenance dose of iron is often necessary.

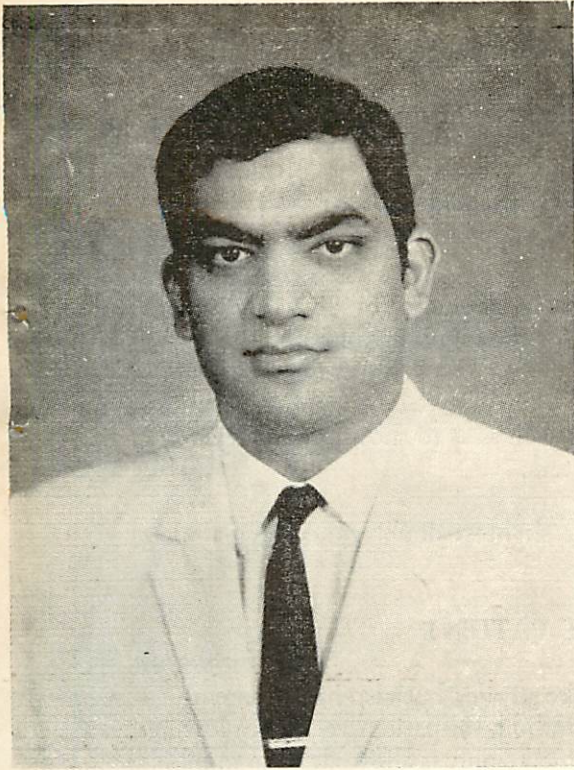
A few patients fail to respond to oral iron therapy and are described as having "refractory" iron deficiency anaemia. The following possibilities should be considered in such cases:

- 1) Wrong diagnosis.
- 2) Failure to take the tablets.
- 3) Persistent haemorrhage.
- 4) A complicating disease like Chronic Renal Insufficiency, Chronic infections or disseminated malignancy or Chronic Hepatic Insufficiency is present.
- 5) Patient is suffering from Malabsorption Syndrome.

Parenteral iron therapy is indicated

1. When there is intolerance to iron.
2. Chronic blood loss in which the source of bleeding cannot be adequately controlled. Such a type of chronic blood loss is seen with gastro-intestinal lesions which do not respond to medical treatment and for which surgery is contra-indicated e.g. certain cases of Peptic ulcer and Hiatus Hernia. Persistent haemorrhage and the repeated epistaxis of hereditary haemorrhagic telangiectasia are other causes of such blood loss.
- 3) When the gastro-intestinal disorders are liable to be aggravated by oral iron, e.g. peptic ulceration, ulcerative colitis, regional ileitis, and functioning colitis.
- 4) Inadequate absorption in steatorrhoea, gastroenterostomy, chronic diarrhoea.
- 5) When a rapid response is required for example anaemia discovered during late pregnancy.

A brief account is given of the Basic facts regarding the *pathogenesis* and the *underlying principles of management of iron deficiency anaemia*,



Pre-Operative Preparation of Patients Undergoing Major Gut Surgery

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Patients who are to undergo major Surgery on the rectum or colon should ideally be admitted atleast 4 days prior to the operations to give adequate time for proper assessment and preparation.

History: An accurate history is very important. It should include not only the details of the present history, but also of past illnesses and operations etc. Drugs used previously should be asked for, in particular, steroids. Drug allergies should be ascertained.

Examination: Complete physical examination is then carried out with emphasis on general nutrition, weight, heart, chest, etc.

LABORATORY INVESTIGATIONS:

- Blood:**
1. *Haemoglobin*—If deficient, adequate measures are taken.
 2. *Electrolytes and Urea*—Are mainly done to establish a base-line for post-operative therapy.
 3. *Plasma Proteins*—To be done when the patient is severely emaciated.

4. *Blood Sugar*—May be required in known diabetics and also in those on steroid therapy.
5. *Grouping and Cross-matching*—To arrange for transfusions.

Urine: Not only for sugar and albumin but also for microscopy to reveal any infection.

X-Rays: Routine Chest X-ray is essential. Most of the patients are old and suffer from various Chest infections.

In patients who are to undergo resection for carcinoma or diverticulitis, an I.V.P. is an important pre-operative measure for the following reasons.

—To exclude involvement of bladder to ureters.

—To gain information of renal function as well as to show any abnormality in position and numbers of kidneys and ureters.

E.C.G.: May be required if there is the slightest doubt concerning the patient's cardiac condition.

PREPARATION OF THE PATIENT

The Bowel: The bowel has not only to be sterile, but also has to be emptied of faecal matter. Four days prior to the operation, the patient receives a low residue diet and in the last 24 hours, clear fluid intake only is allowed. Care must be taken that an adequate salt and water intake is maintained, to compensate for the fluid loss that occurs when the patient is purged.

Apart from certain obvious exceptions, such as partial or complete obstruction, the bowel should be emptied as much as possible. It is not possible to render it sterile unless solid faecal material is removed, and this will also prevent soiling at the time of anastomosis.

Recently, the "Spa" treatment has been introduced producing remarkable cleansing of the colon. In this, 2 drachms of Magnesium Sulphate are dissolved in 60 mls. of hot water. This is given 2 hourly, starting 2 days before surgery. When diarrhoea occurs, the Magnesium Sulphate is discontinued and 2 Dulcolax tablets are given. An enema is given 6 hours prior to the surgery and retained for 15 minutes. If the patient has no abdominal colic, a second enema is given one hour after the first.

The "Spa" technique has 2 drawbacks. Firstly, it is drastic in action and can produce sleep disturbances. Secondly, fluid loss is marked and if untreated, can cause dehydration.

Some surgeons believe that mechanical cleansing alone is sufficient and do not undertake a bacteriological preparation. In the majority of centres however, sterilisation is attempted by different methods.

—Phthalylsulphathiazole 8-10 G. daily in 4 divided doses, for 4 days pre-operatively.

—Neomycin I. G. hourly for 4 hours and 2 G.6 hourly for 36 hours prior to surgery.

—A combination of the above two methods.

Staphylococcal enterocolitis is a severe complication of Neomycin therapy. Candidiasis can occur after sterilisation of the bowel in children and in patients who have been on prolonged steroid therapy. For these reasons, it is safer to combine Nystatin with the standard bowel preparation.

Chest:

As many of the patients are old, chest complications are common. They can be reduced by the following measures:

—Breathing exercises and postural drainage if indicated.

—Bronchodilators or expectorants where indicated.

—Sputum should be cultured and appropriate antibiotic given.

Oral Hygiene:

—Watch for infected teeth and gums and seek dental opinion if necessary.

Cortisone Cover:

If previously steroid therapy has been given during the last two years or the patient is receiving steroids at the time of operation, it is necessary to give adequate cover during the operation and post-operative period. Failure to do this will result in an *Adrenal crisis* possibly with fatal results.

IMMEDIATE PRE-OPERATIVE PREPARATION

1. Put up an i/v drip.
2. If the operation is involving excision of the rectum, insert an indeveling Foley's catheter in the bladder.
3. Ryle's tube is necessary if there has been some degree of obstruction or if he has been vomiting.



Myringotomy

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The operation of myringotomy is supposed to have been performed for the first time in the year 1760 by Eli, for the relief of deafness. Sir Astley Cooper suggested in the year 1800 that deafness due to eustachian tube Catarrh could be corrected by myringotomy. He performed it in four cases, out of which three obtained relief.

John Cummings was the first to suggest myringotomy in cases of acute suppurative otitis media for the drainage of pus. Subsequently this procedure became standard surgical procedure in all cases of acute suppurative otitis media where temperature was 100 °F or pain was present for more than 24 hours. With the discovery of antibiotics the need for myringotomy has greatly reduced.

Indications :

It may be performed either for diagnostic or therapeutic purposes.

A—DAGNOSTIC :

For diagnostic purposes it is performed in cases of conductive deafness when it is difficult to decide whether fluid is present in tympanic cavity or not.

B—THERAPEUTIC :

1. Acute Suppurative Otitis Media

If in case of acute suppurative otitis, inspite the use of adequate doses of appropriate antibiotics, tympanic membrane looks red, bulged, and pain is present for more than 24 hours. Myringotomy is performed to release pus under tension thereby (1) ensuring certain healing of tympanic membrane (2) Preventing complications (3) Relieving pain.

In some of the cases of acute otitis media treated by antibiotics, the tympanic membrane does not appear completely normal, a hearing loss is present. In these cases, tympanic cavity contains pus rendered sterile by antibiotics. In these cases myringotomy is strongly indicated to drain the pus and restore the hearing.

Some of the cases of acute otitis media seem to relapse after a few days. The patient is given a second course of antibiotics, and he gets better only to return after few days. In these cases the patient does not receive adequate doses of appropriate antibiotics as culture and sensitivity report is not available because the tympanic membrane has not ruptured. In these cases myringotomy will help in draining the fluid and also obtaining swabs for culture and sensitivity.

Acute Non-Suppurative Otitis Media

This is also called secretory Otitis Media and is characterized by appearance of a thin watery sterile fluid in the middle ear producing conductive deafness. The aetiopathology here is blockage of eustachian tube by virus, allergy or mechanical obstruction. Here if measures of opening the eustachian tube that is, nasal decongestants, antihistaminies and performing valsalva manoeuvre, politizerisation or eustachian tube catherization fail, myringotomy is performed to drain the fluid.

Chronic Non-Suppurative Otitis Media

This condition occurs in children. The aetiology is believed to be eustachian tube malfuntion and poor aeration of middle ear. It is characterized by accumulation of thick exudate in the middle ear and produces deafness. The treatment consists of drainage of the exudate by myringotomy. In a number of cases, fluid forms again. As the basic factor here is malfunction of eustachian tube, on accessory eustachian tube must be provided for proper aeration of middle ear to prevent recurrent accumulation of fluid. This is done by placing a (a Polyethelene tube shaped like an hour glass) grommet, through an incision in tympanic membrane.

Otitis Barotrauma

This a condition which occurs in persons during the descent of an aeroplane. During decent the atmospheric pressure gradually increases and to equalize the pressure in the middle ear, air must enter middle ear by active opening of the tube. Failure of this results a vacuum in middle ear producing pain and deafness. Sometimes fluid appears in middle ear. Here if simple measures of Politzerisation or an eustachian catharization fail, myringotomy is required.

Technique

In adults if the drum is not inflamed myringotomy can be performed without a general anaesthetic. In children if drum is inflamed, general anesthesia is required, preferably, it should be done under an operating microscope using *aseptic technique*.

Myringotomy could be *anterior* or *posterior*. In *anterior myringotomy* the incision is made in the anterior-inferior quadrant of the tympanic membrane and is done to place the grommet. In *posterior myringotomy* the incision is made in the poster-inferior quadrant of tympanic membrane and this is done for draining the middle ear.



LIFE

“Life is a pool of emptiness
Agrey, green grave of uncommonly depth.
A charnel-house for shifting thoughts.
A womb of cruel nothingness”

ARIF OMER
2nd yr. M.B.,B.S.

SOLONE, METHYL-PREDNISOLONE, TRIAMCINOLONE, DEXAMETHASONE, BETAMETHASONE, and PARAMETHASONE. These drugs are commonly used either for their pharmacological effect or for physiological replacement of glucocorticoids lost as a result of endocrine disease or removal.

RELATIVE POTENCIES OF NATURAL & SYNTHETIC HORMONES.

No.	SUBSTANCES	THE- RAPEUTIC EFFICACY	GLUCO- CORTICO- ID ACTIVITY	MINERALO- CORTI- COID ACTIVITY
1.	Cortisone.	1	1	1
2.	Hydrocortisone.	1.25	1.25	1.25
3.	Prednisone.	} 4	4	0.0005
4.	Prednisolone.			
5.	Methylprednisolone.	5	5	0
6.	Triamcinolone.	5	5	0
7.	Dexamethasone.	20	20	0
8.	Betamethasone.	20	20	0
9.	Paramethasone.	15	15	0

RELATIVE POTENCIES OF MINERALO-CORTICOIDS.

No.	SUBSTANCE	GLUCOCORTICOID ACTIVITY	MINERALSCORTI- COID ACTIVITY
1.	Aldosterone.	0.3	1,000
2.	Corticostirone.	0.5	1.5
3.	Deoxycorticosterone (DOC).	0.01	50
4.	Fludrocortisone.	15	800
5.	Cortisone.	1	1

Metabolic Fate of Glucocorticoids. All are absorbed when given orally. Also absorbed by rectal and colonic mucosa by enema (Nabarro et al 1957), under occlusive skin dressings (Scoggings & Kliman, 1965) and by intra-articular route (Holden and Kendall, 1961) in enough quantities to produce clinical and metabolic changes.

CORTISONE ACETATE reaches max: blood levels 2 hours after oral use. By injection it is absorbed slowly from I/M depot & reaches peak level after 24 hours.

HYDROCORTISONE HEMISUCCINATE. When given I/V, reaches peak levels immediately and after 2 hrs if used I/M. In the blood some quantities of glucocorticoids are bound to plasma proteins. CORTICOSTEROID BINDING GLOBULIN (C.B.G.) has particularly high affinity for Hydrocortisone i.e. it is tightly bound to this protein, but has got low capacity for the hormone. ALBUMIN has large capacity but low affinity. Normally 95% of the hormone is protein bound. If cortisol level is increased after administration or because of adrenal hyperactivity, free un-bound hormone in plasma increases and so does the amount of Hormone bound to Albumin as C. B. G. capacity is limited. The CORTISOL attached to this protein does not change.

C.B.G. Concentration is increased by Oestrogen administration, an important point, in view of increasing use of oral contraceptions and by pregnancy. It may be low in cirrhosis of liver, nephrotic syndrome, protein losing entropathy, and multiple myelometosis. Protein bound glucocorticoid is neither metabolized nor pharmacologically active. This acts as a reservoir out of which free steroid can be reached. Protein binding could be an important factor in determining the pharmacological activity; (BLECHER 1966), has shown that metabolic effects increase as binding decreases, thus cortisol which has a high affinity for C.B.G. and Dexamethasone which has low affinity, with predinsone occupying an intermediate position have an inverse order of Therapeutic & Metabolic potencies. Likewise more active glucocorticoids than cortisol are less tightly bound to C.B.G.

Distribution : Cortisol is found in synovial and ascitic fluid and in C.S.F. (5-15% that of blood, although being unbound it is active).

Metabolism and Excretion: Cortisol is metabolized by liver and kidneys and the products of metabolism excreted by the kidneys is '17, ketogenic steroid' (17-hydroxycorticoids). The rate of production is usually parallel to the rate of excretion, but in Cushing's syndrome, adrenogenital syndrome and in cases of administration of drugs like metyrapone, the metabolism of cortisol is so altered, that the excretion rate is no longer the true reflection of endogenous production of the hormone.

Synthetic analogues of hydrocortisone may be metabolized by different pathways and at different rates to the parent compound.

Actions of Glucocorticoids: Used as replacement therapy or in the management of some non-endocrine diseases. In the latter case it is possible that the dose used may far exceed any physiological requirements.

Although qualitative differences in cellular actions between the two dosage levels cannot be shown, it is readily obvious that large pharmacological amounts of glucocorticoids will induce alterations in the patient which do not appear when drug is used as physiological substitute. One must admit that the present state of knowledge in this regard is yet far from perfect.

CELLULAR EFFECTS OF GLUCOCORTICOIDS

(i) *FAT*. In the management of Non-endocrine diseases, doses of glucocorticoids far in excess of the normal daily secretions of cortisols have to be given. This may produce IETROGENIC CUSHING'S Syndrome i.e. mooning of the face & obesity of the trunk. Biochemical factors in this case are not precisely understood, but increased sense of well being with inherent euphoric effect of CORTICOIDS may increase the appetite and food intake which results in fat deposition. FAT may also be laid down as a result of change in Protein and CHO metabolism induced by glucocorticoids. In fat cell, cortisol stimulates the free fatty acid release.

(ii) *CARBOHYDRATES*. 5-10% of patients receiving steroids develop impairment of glucose tolerance. Of these 1/4 have frank Diabetes Mellitus. Most of these patients have a family history of the disease. Corticosteroids are used to define the prediabetic state. Cortisol impairs the glucose utilization by muscle, skin, adipose tissue, Liver and Kidney. In fasting states it appears to increase hepatic glucogen synthesis in animals.

(iii) *PROTEIN*. A well recognized effect of long term use of glucocorticoids is muscle wasting & weakness. They have catabolic effect on proteins. Protein resynthesis is stimulated in liver, due to cortisol acting on R.N.A. production and thus more protein synthesis in liver.

The postulation that cortisol and its analogues exert their effects by modifying the basic genetic expression of cell's metabolic capability provides an encompassing theory of the mechanism of action, it still does not explain how the hormone acts differently in different tissues, or in different states. It may be that the hormone exerts its different actions through specific receptor sites, and that the physio-chemical characteristics of these sites may vary from tissue to tissue. The ultimate functions of the tissue depend on a complex control system involving both substrate and the hormone.

(iv) *LYSOSOMES*. Cortisone stabilizes lysosomal membranes, thus preventing liberation of lytic and digestive enzymes, which are released in response to certain noxious stimuli. It is thought that this protective effect of the corticosteroids is the basis for their therapeutic action.

Physiological and Pharmacological Effects: They are related to the dose of corticoids, and this in turn depends on clinical indications for giving the drug. When used for adrenal insufficiency the physiological actions of the HORMONE, will be manifested—No side effects will be seen. For pharmacological action, glucocorticoids will show some other effects as well. This later response is the function of amount given. There is no ready explanation as to their underlying mechanism.

Effects on Cardio-Vascular System: Arterial hypotension is a feature of adrenal insufficiency. Cortisol maintains BP by potentiating the effect of adrenaline and nor-adrenaline on cardiac output. In subjects with intact adrenals, glucocorticoids cause an increase in cardiac output, but a fall in peripheral vascular resistance. The hypertension seen in Cushing's Syndrome and after older glucocorticoids therapy may be due to their mineralo-corticoid effects.

EFFECTS ON KIDNEYS & GASTRO-INTESTINAL TRACT

Mainly it is the mineralocorticoids and not glucocorticoids that have an effect on the kidneys. Cortisol however facilitates the excretion of a water load in the cortisol deficient state, and increases the renal plasma flow and glomerular filtration rate.

A well known hazard of steroid therapy is the development of peptic ulceration. Mechanism for this is not clear. It could be the inhibitory effect of glucocorticoids on formation of mucous which may be protective for the gastro-duodenal mucosa.

Effects on Central Nervous System: Patients on 'Corticosteroids' may suffer mood changes. They may become either manic or depressed. Reasons for this are not known. When corticosteroids are withdrawn particularly from children, the manifestations of raised intracranial pressure may appear. This is possibly due to swelling of the brain tissue resulting from failure of normal mechanism for maintaining the blood/brain or C.S.F./brain barriers that may occur in adrenal insufficiency.

Effects on Endocrine System: Prolonged use of glucocorticoids in pharmacological doses results in adrenal atrophy and suppression of endogenous cortisol production. Adrenal may be unable to respond to stress, by producing increased cortisol. If very large doses of corticosteroids are used during pregnancy despite the high degree of Protein Binding in maternal plasma, enough free steroid may cross the placenta to suppress the foetal adrenal, so that after birth the foetus is deprived of endogenous cortisol.

PITUITARY. The adrenal suppression due to corticosteroid therapy is due to inhibition of the secretion of ACTH by Pituitary (Demoura et al, 1966). This in turn is secondary to inhibition of the release of CORTICOTROPHIN releasing factor (C.R.F.), the hypothalamic substance that is secreted into the hypothalamic-hypophysial portal system and controls the release of ACTH by Pituitary.

Children who have received long-term steroid therapy may fail to grow. Glucocorticoids have been shown to oppose the peripheral actions of growth hormones as well as reduce the secretion of growth hormone in response to normal stimuli (Hartog et al 1964). Surprisingly, ACTH does not produce this growth retardation (Friedman & Strong, 1966).

Clinically Thyroid function remains normal.

GONADS. Dexamethosone increases Urinary oestrogen excretion possibly by inducing an increase in pituitary gonadotrophin secretions. Menorrhagia, may result from steroid therapy? a reflection of endocrine changes not mediated from ovaries.

CALCIUM ABSORPTION & OSTEOPOROSIS. Steroids inhibit the formation of Matrix of bone and opposes the action of vit. D in promoting the absorption of calcium from gut & its deposition in bone. Bone resorption is stimulated by steroids.

Inflammation and Antibody Formation: Corticosteroids were introduced to therapeutics for their anti-inflammatory effects, and have subsequently been used in situations in which abnormal mechanisms are thought to be the basis of the illness.

Though the anti-inflammatory and anti-immune actions are usually beneficial, situations may arise when these effects may actually be harmful. The classical example of this is awakening of dormant tuberculous focus in bugs. Corticosteroids also decrease capillary permeability and retard the extravascular circulation of leucocytes and inhibit connective tissue formation. These actions may underlie, the anti-inflammatory and antihealing and scarring effects of glucocorticoids.

Antibody production is reduced by steroids probably due to reduction in anabolic activity and an increase in catabolism induced in lymphoid tissues (Sutherland and Haynes, 1967). There is also evidence that cortisol may inhibit the production of Interferon by virus infected cells (Smart and Kilbome, 1966).

Effects on Blood: Increased doses of glucocorticoids leads to a lymphopaenia, oesinopenia and a polymorpholeucocytosis. Though it is suggested that

some blood coagulation factors are increased by steroids, patients receiving steroids develop a liability to haemorrhagic phenomena. This may be due to the effect of steroids on connective tissue and intercellular ground substance rather than a specific haematological change.

ADVERSE CLINICAL REACTIONS. These range from trivial to lethal depending on the dose.

- These are:
- 1) Infections—T.B., Pyogenic, Viral.
 - 2) Delayed Wound healing.
 - 3) Osteoporosis.
 - 4) Peptic Ulcer.
 - 5) Cushingoid appearance.
 - 6) Obesity.
 - 7) Diabetes Mellitus.
 - 8) Manic Depressive Psychosis.
 - 9) Endogenous adrenal suppression.
 - 10) Hypertension.
 - 11) Oedema (More common with Cortisone & prednisone).
 - 12) Bleeding.
 - 13) Myopathy.
 - 14) Arthropathy.
 - 15) HIRSUTISM.
 - 16) Acne.
 - 17) Glucoma.

WITHDRAWAL EFFECTS

1. Exacerbation of underlying disease 2. Adrenal Collapse. 3. Benign Intracranial hypertension.

MINERALOCORTICIDS: Fludrocortisone is the only one effective when given orally. This hormone or deoxycortone acetate give I/M. is used solely as mineralocorticoid replacement therapy in adrenal disease or removal.

ALDOSTERONE: promotes sodium reabsorption and potassium excretion by kidneys. When given in large doses they cause oedema & hypertension. If receiving too little, a hyponatramia, a low plasma volume & a reduced plasma flow occurs. This is followed by increase in blood urea. In heart failure, liver failure and Nephrotic syndrome, there is secondary hypoaldosteronism which contributes to sodium retentions and oedema. By promoting sodium loss diuretics may increase the aldosteronism still further. If this become bar to successful treatment of oedema, SPIRONOLACTONE, which blocks the action of Aldosterone on the kidney may be given.

Aldosterone production may be inhibited by giving Metyrapone which has an effect on aldosterone and cortisol synthesis and dexamethasone and both replaces the cortisol lost as a result of metyrapone blockade and exerts a further suppressive action on aldosterone synthesis.



Treatment of Cerebrovascular Accidents

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A stroke (*cerebrovascular accident*) is a common occurrence that can be actively managed to minimise its devastating effects. An attitude of fatalism regarding its outcome prevails throughout the Medical profession. Recent years have seen an arousal of interest in this problem and the coming years may well herald some radical departures from the present day methods of treatment as a result of the changes in concepts regarding the etiology and mechanism of strokes that have taken place. This article is meant to examine, briefly the present day status treatment of such disorders with emphasis on the occlusive lesions, which have been the subject of most intensive thinking and research. A brief reference to occlusive vascular pathology will not be out of place. To the traditional triad of cerebral thrombosis, embolism and haemorrhage, there has been the recent addition of Transient Ischemic Attacks (TIA).

Cerebral thrombosis, is spoken of as clinically, synonymous with cerebral infarction. It is caused most commonly by atheromatus narrowing of lumen of cerebral arteries which leads to thrombosis or reduction of blood supply below the critical level. The reduction in blood flow may be caused by factors influencing the systemic circulation e.g. hypotension caused by shock. The result is necrosis of the affected area. The function of the area is lost leading to paralysis

and other manifestation. Disturbance of consciousness are usually mild and transient. Aphasia (*disturbance of speech*) is present when speech area in the left hemisphere (usually the dominant hemisphere) is affected. Consciousness is regained early and partial return of functions of affected parts is usual. The necrosed area undergoes softening and the softened tissue is ultimately absorbed and replaced by glial tissue.

The diagnosis of the site of occlusion is made clinically by the distribution of weakness, presence or absence of hemianopia or aphasia, and other neighbourhood symptoms, if present. A right sided paralysis for example with more severe affection of upper limb, right sided hemianopia and aphasia with corresponding right sided spasticity and upgoing plantar response leads to a diagnosis of left middle cerebral artery thrombosis. Similarly there are recognised patterns of affection for many vessels.

Cerebral embolism gives a similar picture except for possible greater disturbance of consciousness and evidence of a focus for emboli e.g. auricular fibrillation. The space does not permit a full discussion of features of haemorrhages.

Following recent widespread use of angiography, many workers have correlated the clinical picture of strokes with the results of angiography. It was observed that in a surprisingly large number of cases the results of angiography were at variance with the clinical diagnosis based on old assumptions. Gradually, the clinicians have come to the unpleasant realisation that in occlusive disease clinical picture alone is not an accurate guide to the diagnosis and **THE ONLY DIAGNOSTIC PROOF IS ANGIOGRAPHY.**

The last point that may be noted before we pass on to the treatment of strokes is the significance of transient episodes of neurological deficit. In the vast majority, transient episodes are caused by either of two conditions.

- (a) *Progressing stroke*: The term is self explanatory and signifies a gradually increasing loss of function e.g. a gradually increasing weakness of one side of body or a progressive aphasia. Due to stepwise occlusion of vessel.
- (b) *Temporary failure of circulation*: When stenosis of a large vessel exists or where collateral circulation has compensated for a vascular occlusion, drop in blood pressure, increase viscosity of blood or hypoxia causes a temporary loss of function of the involved area with corresponding weakness, paralysis, numbness etc., the deficit, however, is temporary and recovery takes place when offending factor is relieved.

Management of Strokes

Step 1—Diagnosis

A detailed history, physical examination and examination of C.S.F. should differentiate between a haemorrhagic and an occlusive lesion.

Step 2—Supportive care

This includes such measures as maintenance of nutrition, prevention of hypostatic pneumonia, prevention of bed-sores, care of bowel and bladder and physiotherapeutic measures.

Step 3—Decision regarding conservative versus surgical management

After a diagnosis has been made the course of management depends upon the diagnosis.

In an intra-cerebral haemorrhage, if an expanding haematoma causes increasing deficit and a deepening unconsciousness evacuation of haematoma can be done through a burr hole or specially designed needle. Ligation of vessel is done for bleeding aneurysm.

In an occlusive vascular episode—provided the patient is willing and physically capable of benefitting from surgery—carotid or vertebral angiography should be undertaken.

Step 4—Angiography

Angiography consists in injecting a dye e.g. Hydrapak into the carotid or vertebral artery and taking X'ray's in rapid succession to observe the course of the vessel and it's branches. It can be done under local analgesia in any well equipped X'ray department.

Angiography confirms the diagnosis of occlusion and localises its site indicating or contradicting the possibility of surgery. In some cases more than one vessel (even all four) will have to be studied before the site of occlusion is visualised.

It is a safe procedure and the morbidity rate now-a-days rarely exceeds 2 to 4 per cent. Fatality is rare.

Step 5—Surgery

Surgical measures can be profitably employed in extracranial obstruction to vessels. The commonest condition met with is an atheromatous plaque obstruct-

ing the common carotid artery just proximal to its bifurcation which is amenable to surgery. However such measures are only of use in a partial occlusion (Stenosis) or a RECENT complete occlusion. Resection of the diseased segment with end-to-end anastomosis or grafting restores the circulation. In a recent complete occlusion removal of clot and repair of the diseased segment can be done with a similar gratifying result. In properly selected cases full restoration of function is possible.

In intracranial obstruction or long standing complete extracranial obstruction surgery is of no benefit.

The possibility of such dramatic and complete recovery through surgical measures makes it imperative that no patient capable of benefitting from it shall be overlooked. Unless angiography is employed in all suitable cases such benefit is going to be lost to our patients.

Step 6—Alternatives to surgery

Where surgery is not indicated or not possible through lack of proper facilities, the following courses are open to the doctor.

(a) *Encouragement of collateral circulation:*

Collateral channels exist mainly between the branches of internal and external carotid arteries. Encouragement of circulation through these collateral is theoretically possible by the use of vasodilators (e.g. Priscol) or stellate ganglion block. In practice however, neither of these measures have proved of much value.

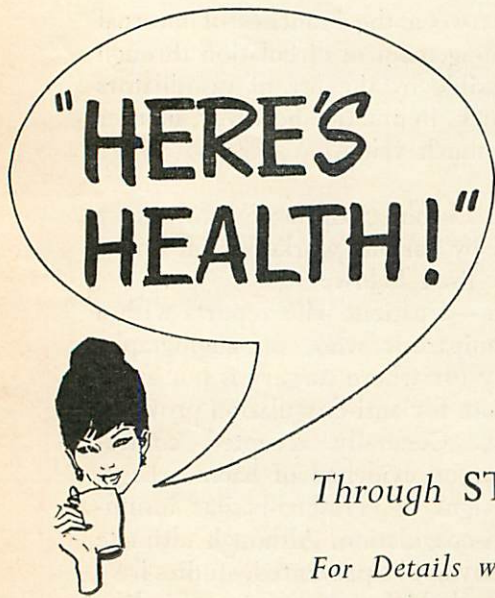
(b) *Anti-coagulants:*

Use of anti-coagulants in strokes is still subject of fierce controversy and very divergent views are held by various workers. The more generally accepted indications are listed below:

(i) During evolution of a stroke—a patient who reports with a progressing deficit like hemiparesis who, on angiography proves unsuitable for surgery (or where surgery is not available), is a suitable candidate for anti-coagulation—provided no contra-indications exist. Generally accepted contra-indications are hypertension, or evidence of haemorrhage.

(ii) Patients with intermittent signs of vertebro-basilar insufficiency also benefit from anti-coagulation. Although ultimate development of thrombosis may not be prevented, studies have generally indicated a significantly higher proportion of individuals who remain free of symptoms over a longer period of time in anti-coagulated groups.

- (iii) Recent strokes: Two recent series from leading centres have supported the impression already gained that anti-coagulants lessen the disability resulting from a stroke. They do not lessen mortality. Usual contra-indications to anti-coagulation have to be observed.
 - (iv) Where anti-coagulants are indicated for other conditions like auricular fibrillation.
- (c) *Therapeutic thrombolysis:*
 Fibrinolytic enzymes and their precursors have been prepared in a sufficiently purified form so that they can be injected with safety intravenously or intra-arterially into vertebral or carotid arteries. However, with the enormously high metabolic demands of brain tissue which causes it to suffer irreparable damage if circulation is obstructed for over ten minutes, no practical method of thrombolysis in cerebral thrombosis has yet been involved.



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Acute Running Ear

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The most common cause of Acute Running Ear is acute infection of middle ear cavity. If these cases are mismanaged during the acute stage, it results in persistent discharge, perforated ear drum and permanent deafness. By proper treatment during acute stage these complications can be prevented. During the last three years, I have collected a series of 300 cases coming to me at different clinics, and I would like to tell you also about the experience gained by handling these cases. I have divided these cases into two groups.

- I. Cases coming to me within three days of onset of symptoms, and without having had any sort of treatment.
- II. Cases coming after three days of onset of symptoms, but who have had some sort of initial treatment by General Practitioners.

Let me discuss first about the Otitis Media itself. According to Mawson, Acute Otitis Media, is an acute inflammation of the mucus lining of middle ear cavity, pharyngotympanic tube, mastoid antrum and air cells, and as long as the pathology is limited to the mucus lining, we call it OTITIS MEDIA. It is when the inflammatory process extends beyond the mucus lining and involves the bone setting up osteitis we call the disease as mastoiditis. Mastoiditis is one of the commonest complication of Otitis Media.

AGE INCIDENCE:

Acute Otitis Media is common in children. Out of 300 cases 250 were children i.e. more than 80% average age is being 6 years.

BACTERIOLOGY:

Its was not possible to have culture and sensitivity done in all cases, because some the patients could not afford, but it was done in 60 of my patients and the commonest organism was Streptococcus Haemolyticus—40%.

PATHOLOGY:

According to the changes taking place in the mucus lining 4 stages have been described.

- I. **Stage of Tube Occlusion:** Sign of this stage is retraction of tympanic membrane due to blocked pharyngotympanic tube. There may be slight effusion in the middle ear cavity which is undetectable by otoscopic examination.
- II. **Stage of pre-suppuratation:** In this stage there is hyperaemia of tympanic vessels. There may also be undetectable serous exudate. Patients do not present in these stages in our country.
- III. **Stage of Suppuration:** Pus is formed in the middle ear cavity giving rise to bulging of the ear drum. Later on drum may rupture giving rise to mucopurulent discharge.
- IV. **Stage of Resolution:** There is complete healing. The ear becomes dry, perforation heals and hearing comes to normal.

SIGNS AND SYMPTOMS:

This depends on the stage in which the case is presented to the doctor. In our country most of cases come in the third stage. Out of 300 cases, 90 were in group I and 210 in group II. Out of 90 cases in group I, only three cases presented during pre-suppuratation stage, and 87 in stage of suppuration. Out 210 cases of group II, all were in stage of suppuration with discharging ears.

The earliest symptoms is severe ear-ache. There may also be deafness, but in children this may not be complained off. In infants sleep is disturbed; The child screams with hands over the ear, and if also, running temperature, we always suspect Acute Middle Ear infection unless proved otherwise. In adults there is no difficulty. There is usually no fever or low fever but deafness is more marked. In

the stage of suppuration with perforated ear drum, meatus is full of mucopurulent discharge and on clearing the discharge perforation can be seen. In cases short of perforation, drum is bulging and hyperaemic.

TREATMENT:

First, I would like to review those 210 cases who came to me, after having some treatment outside and majority of them were "mismanged." Only 15 cases were put on the right by the General Practitioner and these I will exclude from the series of "mismanged" cases. 195 of mismanged cases had the following treatment:

1. Gention Violet drops—in 25 cases for 3 days to 3 weeks.
2. Mercurochrome drops—in 22 cases for 3 days to 15 days.
3. Other trade preparations—in 56 cases 3 to 15 days.
4. Drops name not known—in 80 cases.
5. Home treatment on oil, extract gaslic etc.—In 12 cases.

Out of these 195 patient's 95 were given some sort of oral preparation but not regularly and not in proper dosage.

All of these cases, when seen by me had discharging ear, deafness and perforation. In spite of my best attention and treatment I could cure only 55 cases with complete resolution. In the rest of them i.e. 140 cases the disease had become chronic with possible involvement of mastoid bone and beyond the scope of conservative treatment.

Comment on their treatment:

I believe that local drops in any form are of no use for these acute ears. I would strongly CONDEMN Gention Violet and mercurochrome for two reasons.

1. They do not do any good.
2. They colour the meatal skin and drum thus making the assessment more difficult.

Local antibiotic drops are also not recommended for the following reasons:—

1. They do not penetrate deep into the tissue.
2. They may promote the fungal growth.
3. They may cause development of resistance.

TREATMENT OF CHOICE:

As in majority of the cases, the organism are Streptococcus Haemolyticus,

Staph. Aureus and Strepto. Pneumoniae. I think, first choice of treatment is injection PENICILLIN—This should be started immediately and in full doses.

I would prefer injection over oral therapy because of reliability of doses. In children oral therapy is not reliable because the child may vomit or half the drug may fall down; moreover mother may not like to disturb a sleeping child and thus miss the dose. In penicillin allergic patients, broad spectrum antibiotic may have to be preferred.

In all the cases culture and sensitivity should be done and depending on the result drug should be changed as soon as possible.

Out of my 90 cases who were put on injection penicillin within three days of onset of symptoms response was excellent in 70 cases, and complete resolution was obtained within 10 days. In 20 cases, antibiotics had to be changed either after the culture report or after failure to respond to penicillin.

With broad spectrum antibiotics, strict instructions to the parents regarding the administration and dosage. In 17 out of 20 penicillin resistance cases, response were good with complete resolution within 10 days. In only 3 cases, Cortical Mastoidectomy was advised after 7th day of start of the treatment because discharge persisted and rather increase.

SUMMARY:

It is very important to diagnose Acute Otitis Media as soon as possible.

Diagnosis is made by ear ache, purulent discharged and deafness with perforated ear drum.

Intensive antibiotic therapy should be started as soon as possible.

Local application of drops etc., is of no use.

CENSOR: A fellow who spends his time explaining what would happen if something which isn't going to happen should happen.

CHARACTER ACTOR: One who has more lines in his face than in his last play.

STOP PAIN

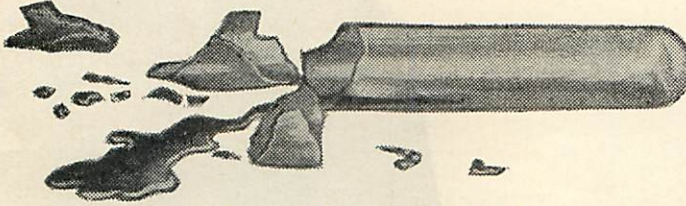
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جی ہاں! ہم اپنی ادویات کے لئے صحیح کوالٹی کے علاوہ کچھ برداشت نہیں کر سکتے۔ دو اساز کو محتاط ہونا ہی چاہئے۔ معیار کا کرنا ہمیں ہرگز گوارا نہیں۔ ایٹکو کے بلند معیار کو قائم رکھنے کی جدوجہد ایٹکولیباریٹریز کے ہر شعبہ میں یکساں نظر آتی ہے۔ ہمارے شب و روز اسی نصب العین کے لئے وقف ہیں کہ ایسی معیاری و موثر ادویات تیار ہوتی رہیں جن کے ذریعہ دکھ اور بیماری سے نجات ملے اور زندگی کو صحت مند و خوشگوار بنایا جاسکے۔

بیماریوں کے دشمن
صحت کے دوست



ایٹکولیباریٹریز - کراچی

Example (1) A dead man was found in dry malir river, some yards away from the water bridge. There was only little blood on the shirt. He was thought to be a case of accident by the investigating P. officer but on careful examination at post-mortem, a small bullet wound was found in the skull and this was a case of murder by a gun.

(2) In England an accused was found guilty of murder by injecting his wife with insulin. He pleaded that he found her unconcious in a bath, and immediately let the water run out, and had applied artificial respiration, and called for help. A doctor arrived ten minites later and the police some 30 minutes after that the detective sergeant notified that no condensation on the walls or windows and found the dead woman's pajamas "damp and sweaty". In her bedroom a pool of water lay between her armpit and her body, a fact that was quite inconsistent with accused's statement that he had performed artificial respiration. Injection marks were subsequently found in the buttocks and insulin was identified in the under-lying muscles. After port-mortem examination conviction followed.

The circumstances, the locality, position of the body of a person who has been found dead, the position of any weapon found at the scene, the condition of the furniture (disturbed or not) and the condition of the clothing, as well as the form and direction of any wound are not always, noticed with sufficient accuracy—They may instantly disclose the nature of the case.

Lack of observation may lead to the acquital of guilty person or worse to the wrongful arrest of innocent people. A judge has remarked that "a medical man, when he sees a dead body should notice everything", the doctor should make it a rule to observe everything which could throw light upon the nature of injuries found upon a dead body.

Another matter of equal importance, which is frequently omitted when examining a dead body is to observe, whether the dead or any part of the body is still warm or whether the limbs were cold and rigid or cold and easily yielding.

In criminal cases, these observations will enable a witness to speak with greater surity as to the time of death. This may make all the difference between the acquital and conviction of a person charged with murder.

NOTES AND REPORTS ON CASES

It is of utmost importance, that all doctors should make as copious notes as possible, when there is the slightest possiblity that any case may ultimately become the subject of medico-legal inquiry. This is especially to be emphasied

in case of accidents, however trivial, for legal redress is frequently sought by those injured through accidents or by their relations often after a considerable lapse of time. Accurate record then proves invaluable.

CERTIFICATE OF DEATH

In case of death of any person, who has been attended during his last illness by a registered practitioner, that practitioner shall sign a certificate stating to the best of his knowledge and belief, the cause of death and shall forth-with deliver that certificate to the Municipal Corporation Registrar for record.

This is the legal duty of every doctor and must be undertaken provided:—

- (a) He is a qualified registered medical practitioner.
- (b) He has been in professional attendance during the last illness within 14 days.
- (c) He is satisfied that the cause of death is natural one and knows what it is, otherwise he should lose no time in reporting the case to the police or coroner where present in cases of unnatural deaths.

DEATH FROM UN-NATURAL CAUSES ARE:—

1. Any sort of accident.
2. Violence-murder.
3. Neglect.
4. Poisoning (including alcohol).
5. Drug addiction.
6. Septicaemia.
7. Food poisoning.
8. Death before full recovery of anaesthesia, in operation.
9. Deaths occurring in industrial exposure or during work in factory.
10. Infanticide.
11. Deaths from obscure or uncertain cause.

EVIDENCE ON SUBPOENA

A doctor must attend the court if properly summoned. Non-compliance in a civil case may render him liable to an action for damages, and in a criminal case, to fine or imprisonment unless some reasonable excuse is forthcoming. It is often seen that bailable warrants are issued compelling them to attend the courts. If this too is neglected, a non-bailable warrant can be issued.

Difficulty may arise, where a doctor is summoned to attend more than one court at the same time. He should attend the higher court first and inform the other courts. If he gets the summons from the courts of the same status, then he should attend that court first who is trying more serious offence or whose