summon is received first. If he receives summons for civil & criminal courts, he should attend crimnal first and inform the civil court. In civil cases it is customary, to offer a fee, termed, *conduct money* on serving subpoena—If this is not done, the doctor may ignore the subpoena, if he so desires. In a case where a medical man considers the fee offered at the time of the service of a subpoena less than what he is entitled to, he must ask to have his proper fee paid before being sworn to give evidence, and the presiding judge will decide the fee to be paid in the circumstances.

In criminal cases no fee is tendered at the time of serving subpoena. The private practitioner may demand a fee at the time of giving professional evidence before taking the oath, but he should not insist on its payment if the presiding officer of the court is not willing to sanction the sum demanded by him. He must give evidence or he may find himself in the incovenient position of being charged with contempt of court. The Government has not laid down a definite scale of fees payable to medical practioners for attending, to give professional evidence in criminal prosecutions. It is customary to pay the usual fee of Rs. 16, to a Civil Surgeon and Rs. 10 to a member of provincial medical service incharge of a dispensary or a casualty medical officer, for giving evidence in a Magistrates court as expert witness in summons case under section 244(3) of the criminal procedure code i.e. If the Magistrate does not convict the accused under the preceding section or if the accused does not make such admission, the Magistrate shall proceed to hear the complaint (if any) and take such evidence as may be produced in support of the prosecution and also to hear the accused and take all such evidence as be produced in this defence. The Magistrate, may before summoning any witnesses on such application require that his reasonable expenses incurred in attending for the purposes of the trial be deposited in the court. A fee can also be charged u/s. 257 (2) i.e. If the accused after he has entered upon his defence, applies to the Magistrate to issue process (Summon) for compelling the attendance of any witness for the purpose of examination, or cross-examination, or the production of any document. Unfortunatly no ammendment in the doctors fee has been made since the time of partition, when summoned to give evidence in warrant cases. Medical officers in government service are not entitled to their fees as experts, but are usually paid two rupees as travelling expenses if they are employed in the town where the court is held.

EVIDENCE

Medical evidence given before the court is of two forms:

I. DOCUMENTARY.
   i) Medical certificate.
   ii) Medico-legal reports, X-ray etc.
   iii) Dying declaration.
   or Dying depostion.

II. ORAL:—It refers to a fact which could be seen, heard or perceived or by any other sense or in any other manner, by a witness. It is more important than documentary evidence, since a medical man has to prove on oath that the documentary evidence supplied by him to the court, is true and correct and is in his own handwriting. The following are the exceptions:—

1. Dying declaration in connection with charges of murder or manslaughter.
2. Printed opinion of experts.
3. Deposition of a medical witness taken in the lower court.
4. Chemical examiners report.
5. Evidence given by a witness in a previous judicial proceeding.

DYING DECLARATION:—It is made orally or in writing, this is accepted in the court as legal evidence after the death of the erson who made, even if the declarant dies some days, after making the declaration, should the person chance to live his statement casases to have any legal force as a dying declaration.

THE DOCTORS PART IN TAKING THE DECLARATION.

1. The patient must understand that he is dying and the patient knows that there is no hope of recovery and he should be asked whether he wishes to make any statement. If he declines to make any statement, the doctor may then urge upon him the importance and disirability of doing so, pointing out, what use may be made of it in defending the innocent or in punishing the guilty.

2. Assess very carefully the mental condition of the patient. In a state of shock due to violence, specially, when severe loss of blood or grevious injury to head leading to death, the intellect of a dying person becomes confused.

3. See that the patient's statement is written down verbatum, either then and there or at the earliest opportunity after it has been made in the identical words used by the patient. If possible after the statement has been written.

(a) It should be read to the patient to ensure that it represents what he desires to say.
(b) That it should be signed by the patient or if this is impossible.
(c) It should be signed by any other respectable person present as being an accurate & complete account of what the patient said.

(4) In no circumstances, allow leading question to be put, and if at all possible, the question asked as well as the answers received, should be written down. As a rule question should be directed only to explain what may appear ambiguous or contrary in the statement of the patient.

(5) These statements are recorded by the medical officer in case he thinks death is immediate, otherwise he should send for the magistrate through police in writing, noting down the date and time.

(6) That as far as possible, the police officer should not be allowed to be present. When the dying declaration is recorded.

(7) That the accused or his pleader, if present should be allowed to put question to the declarant.

DOCTORS'S RESPONSIBILITY IN CRIMINAL MATTERS

A medical praticitioner should at once inform the police about a criminal act, that might have come to his knowledge in his professional work, but this is not always the case. He should not play the part of the detective but use his own discretion. For example:—

(1) He should hand over to the police man, who, from the nature of injuries he may suspect to be an assailant in a murder case.

(2) If he happens to treat a person who has attempted to commit suicide, he is not bound by law to report to the police or to the proper authorities, but if he happens to die then the doctor has to inform the police.

IN CASES OF CRIMINAL ABORTION

1. The medical practitioner is under no legal obligation to urge the patient to make a statement, or if she refuses to do so, to take any further action. Because it is the moral obligation of every practioner to respect the confidence of his patient and not to disclose information without her consent.

2. When a patient is dangerously ill and consents to give evidence, her statement may be taken in one of the following ways:

(a) A magistrate be called to receive her deposition on oath, which will be admissible evidence in the event of her death, provided that reasonable written notice of the intension was served on the accused person and he or his legal advisor had full opportunity to cross-examine.

(b) If the patient is going to die shortly, then, her dying declaration will be admissible, such a declaration may be made to the medical practitioner or to any other person. It is desirable to be signed by the patient and the witness. The declaration should be in actual words of the patient.

3. If the patient should die, he (doctor) should refuse to give a certificate of the cause of death, and should communicate with the coroner or the police or the magistrate before the body is disposed of.

4. That before taking any action which may lead to legal proceedings, a medical practitioner will be wise to obtain, the best medical and legal advise available, both to ensure that patients' statements may have value as legal evidence, and to safegaurd his own interest, since in the present state of law there is no certainty that he (doctor) will be protected against subsequent litigation.

5. That the doctor after a thorough examination should make a note of the findings.

POISONS

DUTY OF MEDICAL PRACTITIONER IN A CASE OF SUSPECTED POISONING

He must be very cautious in giving his opinion about poisoning. On mere suspicion he should never give a verbal or written opinion, lest he may be victim of an action for damages brought against him. In a respected case of poisoning, he should try to find out the poison and administer appropriate antidote, to save the life of the patient. It is better to call in one or two brother practitioners for consultation, and to have the patient removed to the hospital, where the doctor incharge should be informed of the suspicion. If he can afford expenses the employment of two trained and trust worthy nurses to take charge of the patient in his house or nursing home and also his food and medicine will be save guarded for day and night against further administration of poison. Collect vomited matter, stomach wash, urine and faeces for chemical analysis, also suspected articles of food drink and medicine be removed. The near relatives and friends be taken into confidence and inform them of the suspicion of poisoning. The patient may also be warned against the danger, if he happens to be an adult and in full possession of senses.

If the medical officer fails in his duty in this connection he may render himself liable to be charged with causing *disappearance of evidence under section 20 PPC*. It must however be proved that the medical practitioner did it with the intention of screening the accused, otherwise it is merely an error of judgement for which he can not be held responsible.

Section 20, PPC, if the offence which he knows or believes to have been committed is punishable with death, be punished with imprisonment which may extend to seven years, and shall also be liable to fine.

And if offence is punishable with transportation of life, with imprisionment which may extend to 10 years, shall be punished with imprisonment of either description for a term which may extend to three years, and shall also be liable to fine.

If it is a case of Homicidal poisoning the doctor is bound under section 44 criminal procedure code to inform to the nearest police officer or a magistrate. Non-compliance is punishable under section 176 PPC i.e. punishment for simple imprisonment for a term which may extend to one month or with fine which may extend to 500 rupees or with both.

The doctor is not bound to supply information of his own accord to the police magistrate, if he is sure that case is one of *medical poisoning*, section 309 PPC i.e. The offender who commits suicide shall be punished with simple imprisonment upto one year or with fine or both.

If the case comes to the notice of the investigating police officer, and if he is summoned then the doctor is bound to divelge all information under section 175 CPC. If he conceals any information he is liable to be prosecuted.—Punishment is upto 6 months, or fine or both.

To avoid these difficulties the medical officer (CMO) should report to the police all cases suspected to be of poisoning, whether accidental, suicidal or homicidal admitted in the hospital.

In cases where suspected poisoning proves fatal the doctor should never grant a certificate, but inform the police for necessary investigations.

Traumatic Wounds and Management

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DEFINITION

Wounds may be inflicted accidentally or produced by the Surgeon to correct a disease process.

The wounds produced accidentally may be so extensive and damaging that they may kill the patient. The proper treatment in the Emergency Room rapidly and judiciously performed surgery and good post operative care will make it possible to save the lives of many seriously injured patients.

(CALLING FOR HELP AT THE PROPER TIME IS THE MARK OF MATURTIY IN THE EMERGENCY ROOM. PRIDE HAS NO PLACE HERE.)

The local response of body depends largely on the kind and severity of trauma. In general the simplest injury are those which damage cells without impairing their viability, such as, a stroke on the skin with dull blunt object or mild scald. The more severe injuries cause actual death of cells, called necrosis or when the tissue involved is extensive gangrene.

The various injurious agents may be:—

1) Mechanical (Traumatic).
   - i) Contusion
   - ii) Laceration

2) Chemical Irritant.
   - i) Acids
   - ii) Alkalies
   - iii) Insects and snake bites (due to toxic chemical substances being absorbed)

3) Radiant Energy.
   - i) Heat
   - ii) X-rays
   - iii) Radium
   - iv) Electricity

TYPES OF WOUNDS

(A) CLOSED

i) *Contusions*

A contusion or a bruise is an injury of the subcutaneous tissue usually inflicted by a blunt object. There is frequently laceration of the soft tissue beneath the skin.

The injury of the overlying skin or mucous membrane is usually trivial and not great enough to allow the enterance of of bacteria.

PAIN is experienced immediately (Unless it is masked by excitment traumatic shock or unconsciousness).

SWELLING, TENDERNESS & ECCHYMOSIS

The pain usually subsides and disappears in 24 hours. Blood vessels are invariably severed except in minor injuries and give rise to subcutaneous haemorrhage. If the haemorrhage arises from small vessels the blood infiltrates the tissue and becomes visible as black and blue spots on the skin. This is called ECCHYMOSIS.

If the blood does not infiltrate the tissue but remains localised in a circumscribed manner. It is called 'HAEMATOMA'.

Treatment of contusion consists primarily of the application of pressue and cold packs to stop haemorrhage and extravasation. Rest to the injured part is essential to obtain optimum healing. After 24 hours heat application to promote blood supply.

When the laceration of S/C tissue is present and is extensive as in crushing injury extensive contracture due to scar or atrophy of important structure may develop.

Treatment : supervised active and passive motions may prevent the development of these complications.

If a Haematoma is developed and does not subside within few days, an attempt should be made to aspirate. If evacuation is not possible by aspiration a small incision under local anaesthesia may be given. The clot evacuated and pressure bandage is applied to eliminate the resultant space.

(B) **OPEN WOUNDS**

i) *Abrasion*: Abrasion consists of tearing or cutting of the superficial layers of epithelium and is associated with an effusion of serum or slight amount of capillary bleeding.

ii) *Puntured Wounds*: Puntured wounds are made by sharp objects and may be comparatively deep although the surface wounds may be very small.

iii) *Lacerated Wounds*: Lacerated wounds are produced by dull objects and presents torn and uneven surfaces.

iv) *Incised Wounds*: Incised wounds are produced by sharp object and presents smooth even edges.

v) *Penetrating and Perforating Wounds*: A wound is considered penetrating when it enters the body cavity, it is classified as perforating when it penetrates the entire body.

SIGN AND SYMPTOMS

1. HAEMORRHAGE
2. TENDERNESS
3. PAIN

After an hour or two, swelling, mild leukocytosis and fever.

SYSTEMIC EFFECTS OF TRAUMA

Every serious wounds produces certain non specific systemic effect on the body as a whole. These remote results of injury often prove of great consequence in recovery of patients than the wounds itself. Certain effects are obvious, for example:

—Pain
—fever
—anaemia from loss of blood
—prostration
—immobility
—anorexia

and these may produce shock, metabolic changes in cell permeability, hepatic, renal and GIT impairment.

METABOLIC CHANGES

The various corticoids produce metabolic changes which influence the behaviour of water, salt, carbohydrates and protiens. Cortisone is diabetogenic producing hyperglycaemia and glycosuria (Traumatic Diabeties).

In injuries there is retention of water and sodium and increase in the output of potassium.

Sodium: Hyponatremia during the post traumatic period may be due to the action of corticosteroids. It occurs due to positive sodium balance which follows sodium retention (due to increased secretion of aldosterone).

Potassium: The plasma potassium is occasionally elevated specially with the onset of oliguria.

EFFECTS ON CENTRAL NERVOUS SYSTEM

The injured patients exhibits perhaps the most obvious changes in the C.N.S. function when he becomes depressed or looses consciousness or goes into coma.

Hyperactivity as shown by apprehension, restlessness even delirium and convulsions may occur. Sensorial changes may also be due to specific causes. For example anorexia, shock. Aside from cerebrum itself the peripheral nerves may also play a part in some of the non-specific effects of trauma by initiating reflex changes such as vasospasms in the peripheral arteries as well as renal arteries.

EFFECTS ON LIVER.

There is impaired function but rarely severe enough to produce Jaundice, (Not due to increased haemolysis or Billiary obstruction) there is increase in plasma total and indirect bilirubin immediately after injury reaching a peak five times the normal six hours afterwards.

—The urine urobilinogen also increases

—Thymolturbidity is unchanged while cephlon flocullation is increased after injury.

EFFECTS ON RENAL FUNCTION

It is the most serious of the outlying effect of trauma of which the causes are:

—Post transfusion reactions

—shock

—Hypotension by reducing renal blood flow

—3 to 4 hours of complete renal ischemia will lead to irreversable renal failure.

EFFECTS ON GASTEROINSTINAL TRACT

The injured and specially fractured patient suffers from nausea, vomitting and occasionally paralytic ileus. There may be a decrease in the gastric motility and secretions and also a decrease in salivary secretion.

A temporary non visualization of Gall Bladder may occur if Cholicystography is performed immediately after injury.

OTHER CHANGES

—A fall in serum iron.
—A drop in the level of plasma aminoacids associated with a fall in blood lipids.
—Calcium is also lost after trauma specially all fracture.
—Vitamins: Vitamins C disappears rapidly from blood after injury despite large intake.

CARBOHYDRATES

Hyperglycaemia, Glycosuria and Ketonuria have all been observed after trauma.

POST TRAUMATIC BLOOD CHANGES

—There is a fall in haemoglobin as well as plasma protiens.
—The red cell counts parallels the haemoglobin conc. and the Red Cell Sedimentation Rate is reversed.
—The colour index is unchanged.

TREATMENT OF OPEN WOUNDS

GENERAL PRINCIPALS

To minimise infection and facilitate rapid healing, numerous important principals must be utilized in the treatment of all serious wounds.

1. *MAINTAIN* ASEPTIC TECHNIQUE: All the personels working in the operating room must wear caps, and efficient masks, coughing sneezing and clearing of throat is prohibited.

The skin properly prepared i.e. washed with soap and water and drapped to exclude skin from the field after the incision is made.

2. MAINTAIN GENTLENESS AT ALL TIMES: Since rough manipulation give rise to haemorrhage exudation and infection and healing may be impaired.

3. Use SMALL INSTRUMENTS: Particularly haemostates and ligatures of a small bites of tissue in tying bleeding point will result in much less trauma to tissue.

4. UTILIZE SHARP DISSECTION WHERE EVER POSSIBLE.

5. KEEP TISSUEMOIST.

6. MINIMIZE BLOOD LOSS AND REPLACE THAT LOST.

7. USE FINE NON ABSORBABLE SUTURES WHENEVER POSSIBLE.

8. LEAVE NO DEVASCULARIZED TISSUE IN THE WOUND. Devascularized tissue always encourages the development of infection particularly gas gangrene.

9. AVOID DEAD SPACE AND TENSION: Any dead space soon becomes filled with serum in which the bacteria tend to grow. Tension is very undesirable because it interferes with normal blood flow through the area and makes the sutures cut through the tissue thereby encouraging wounds dehiscence.

10. SAVE ALL SKIN POSSIBLE.

11. MINIMIZE THE USE OF DRAINS: The indiscriminate use of drains particularly those left in place for days is to be condemned because drains produce open wounds which encourage infection by contamination from outside.

12. DO NOT ATTEMPT TO SUBSTITUTE CHEMOTHERAPY FOR GOOD SURGERY APPLY PROPER EMPHASES ON REST.

13. UTILIZE DRESSINGS FOR SPECIFIC PURPOSES: The purpose of the dressing is to protect the wound from outsides contamination and to absorb secretions because of danger of contamination during a change of dressing. They should be changed in frequently unless pain or unexplained fever develops or they become soiled.

MANAGEMENT

General Principals

1. Determine the extent of injury quickly but thoroughly.
2. Treat immediately such life endangering conditions as serious external bleeding, repiratory distress and shock.
3. Improvise dressing, Splint and transportation and arrange for prompt definitive treatment.

(A) Evaluation of Patient

1. Take sufficient history to acertain degree and type of damage and any serious underlying medical problem, for example, Cardiac disease and Diabeties Mellitus.
2. Examine the patient thoroughly after major trauma
   (i) External Bleeding: Control bleeding promptly.
   (ii) Respiratory distress: Stridor and suprasternal or intercostal retraction indicate airway obstruction.

— Shortness of breath may be due to chest injury or shock.
—Respiratory depression may occur in head injury or in severe shock.
—Cyanosis is due to poor oxygenation from any cause.

(iii) Shock: Typical signs are faintness, pallor, cool moist skin, thurst, air hunger, weak usually rapid pulse. Distinguish neurogenic from oligemic shock.

3. Fracture and Dislocation:
—Palpate carefully from head to foot.
—Move all joints carefully.
—Exert gentle pressure on spine, chest and pelvis.
—Pain, swelling, ecchymosis, deformity and limitation of motion, are classical signs of fracture and dislocation few or none of these may be apparent immediately after injury.

4. Brain and spinal cord damage: Assess C.N.S. injury by noting state of consciousness gross skin sensation and ability to move extremity actively.

5. Internal Injuries: Overt localizing signs are often minimal, hypovolemic shock in the absence of external bleeding or extensive soft tissues trauma suggests internal haemorrhage.
—Chest pain with respiratory distress and abdominal pain with signs of peritoneal irritation, points to visceral injury.

(B) Management of External Bleeding

1. Venous and minor arterial bleeding:
These can be controlled by direct pressure of the wound with sterile gauze or a clean cloth and elevation of the part.

2. Major Arterial bleeding:
Serious bleeding is usually due to the laceration of a major artery: Speed is essential.

i) Direct Pressure on the wound will reduce or stop the flow.

ii) Compression of the major artery proximal to the wound may make local pressure effective and permit grasping of a bleeder with the haemostate or allow time for fashioning a tourniquet.

iii) TOURNIQUET. When large vessels are severed and the bleeding is not controlled by pressure, pack and bandage. It may be necessary to apply tourniquet, untill definitive treatment can be carried out. To minimise deleterious effects from ischaemia the tourniquet is released for a few second every 20-30 mins. The tourniquet will have to be released at the end of two hours lest the ischaemia leads to gangrene.

(C) Management of Respiratory Distress

i) When due to airway obstruction:

a) Remove secretions and foreign material from the mouth and throat, use suction if available.

b) Hold up the patients chin or pull out his tongue when relaxation of tongue and jaw obstruct the hypopharynx as in comatose patient.

c) Tracheostomy is indicated, if a foreign body or oedema obstructs the larynx.

ii) When due to other causes:
—Maintain a clear airway.
—Treat the underlying cause and administer oxygen if available.

iii) In Respiratory Arrest:
—Clear the airway and institute artifical respiration by mouth to mouth or Silvesters method.

(D) **Management of Shock**

Anticipate and prevent shock by:

i) Control Bleeding and such contributing causes as exposure and pain.

ii) Keep the patient comfortably warm in a recumbent and slighly head down position.—Avoid rapid position changes.

iii) Splint fractures and apply traction if necessary to relieve pain.

iv) If profound or progressive shock develops give blood, plasma or plasma substitutes as soon as possible.

(E) **Control of Pain**

—Distinguish fear and excitment from real pain.
—Immobilization of injured parts often relieves distress.
—Narcotics are contraindicated in coma, head injuries and respiratory depression otherwise when pain is severe give morphine sulphate 10-15 mg I M.

CARE OF OPEN WOUNDS

A) **Clean wound**:

(a) *Debriment*: All wounds are carefully inspected for the presence of foreign body, infected material or tissue. Taggs poorly vascularized tissue are cut away (Debriment) and the wound thoroughly irrigated with isotonic salt solution.

b) *Repair*: At this time any divided deeper structures, such as, tendons, arteries or nerves are examined and repaired. Primary closure of skin is then done using in addition a few deep sutures to eliminate cavities that might collect fluid.

c) *Dressing*: Following closure, the wound is covered with clean protective dressing of gauze and adhesive tape. The principals of elevation and immobilization are instituted.

d) *Antibiotis and Antitoxins.* The use of induced immunity against tetanus is indicated in cases of accidental wounds, even when they appear clean. 3000 units of Antitoxin are given, after appropriate skin testing against the possibility of the patient being sensitive to horse serum.
Prophylactic Penicillin or other antibiotic is used under strict indication. And only when the wound is of considerable size or when deeper structures may be seriously damaged. The smaller clean wounds without injury to deeper structures need not be treated with antibiotics.

B. **Contaminated Wounds**

Debriment

DEFINITION: REMOVAL OF ALL FOREIGN MATTER AND ASEPTIC EXCISION OF CONTAMINATED AND DEVITALISED TISSUE IS CALLED DEBRIMENT.

When ever possible it should be carried out in the main operation theatre and regarded as a major operation. Local anaesthesia is inadequate so general anaesthesia is given.

PREPARATION OF SKIN

The wound is packed firmly so that the skin including the very margin can be cleansed without adding to the contamination of the wound.

—A large area of surrounding skin is shaved.
—It is then scrubbed with soap and water or more efficiently with 0.5% of detergent for example cetevalone.
—The scrubbing is done for five minutes by the clock.
—Ether is used to remove grease if necessary.
—Finally the skin is swabbed with spirit.
—Gloves are changed and wound drapped.

IRRIGATION OF WOUNDS

The pack is removed and any obvious pieces are picked out.
—Swabs are taken from the wound for culture and sensitivity.
—The interior of the wound is irrigated with a stream of normal saline directed from the syringe.
—The irrigation completed the wound is finally dried with gauze pack and fresh towels are arranged around the wound.

ENLARGEMENT OF WOUNDS

To reveal underlying damage the incision should be adequate, there must

be no hesitation in making incision large enough to display all possible damage tissue. The whole operation of debriment is performed by sharp dissection.

EXCISION OF SKIN EDGES

Should be conducted in a most conservative manner for skin has great power of survival. It is seldom necessary to excise more than 3 mm from the entire periphery of wound. It should be kept in mind the skin edges should be without tension.

Fat: There should be wide excision of fat. The skin should be undermind so that atleast hlaf an inch of fat can be excised. If the fat is blood-stained it should be removed.

Fascia: Loose tags should be picked up and severed close to their attachment with scissors. The fasica surrounding the wound is then excised widely.

Muscle: Dead muscle is the medium par excellence for the growth of bacteria particularly of gas grangrene. All devitalized muscle must be excised.

The characteristics of living muscles are

i) It contracts when cut or pinched.
ii) It bleeds when cut.
iii) It is redish-brown in colour.

When in doubt apply a warm moist pack for two to three seconds, living muscles will blanch, dead or dying muscle will retain its chilled beaf colour. The vitalized muscles are cyanotic and often *ragged* small portion of damaged muscle are lifted up and snipped off. In this way one can see what is being cut and nerve and blood vessels can be avoided.

HAEMOTASIS

Bleeding is arrested mainly by a pressure of a warm moist pack. If this fails the bleeding vessels or vessels are ligated with fine non absrobable material. Throughout operation intermitent irrigation of wound is carried out with ward isotonic solution.

The Wound should not be Closed: Unless each and all of the following stipulations have been complied with:

1. The operation is undertaken within 6 hours. (Golden period).
2. The wound is not severely contaminated.
3. Excision has been performed to the satisfaction of the operator.
4. The patient is not suffering from shock at the time of operation.

5. There will be no pockets when the skin is closed.
6. The skin edges can be brought together without tension.

Even if all the requirements are fulfilled wounds with major muscle damage are best left open.

DEEP STRUCTURES

Deep structures in a contaminated wound are considered in 2 catogories:

1. Those that can be repaired at a later date. e.g. tendons and nerves.
2. Those that require immediate repair to preserve life and limb e.g. pleura, peritonium, joint capsules, meningies etc.

DRESSING AFTER CARE OF THE WOUND

The wound dressing performs six broad functions:

1. COMFORT: is provided by a gauze padding which is soft and does not adhere to the wound. In wounds that are open fine meshed gauze or ointment helps prevent granulation tissue and wound exudate from growing into or becoming adherent to the dressing.
2. Protection against trauma: The wound is protected against external trauma by the padding of the dressing.
3. Support to wound edge: Support and immobility to the wound are provided by adhesive strapping, cloth and elastic binders, starched dressing or plaster of Paris.
4. Absorption of exudate: Absorption of exudate or haemorrhage presupposes that the wound is either loosely stitched, drained or left open. In all these cases a bulky dressing with several layers of gauze or absorbent padding should be used.
5. Protection Against Infection. The wound edges seal rapidly with coagulum.
   A plastic film spread on is another form of coverage of wound.
6. Haemostasis.

CAUSES OF DELAYED HEALING

1. Infection.
2. Incorrect closure.
3. Excessive trauma, during operation.
4. Lack of immobility.
5. Mechanical and chemical trauma.

6. Foreign body.
7. Impaired circulation.
8. Malignancy.
9. Malnutrition.

LABORATORY EXAMINATION

a) In major injuries determine.
   i) Haemoglobin.
   ii) W.B.C. and differential counts.
   iii) Urine analysis.
b) Group and cross match blood for blood transfusion as required.
c) Obtain appropriate X-Rays.

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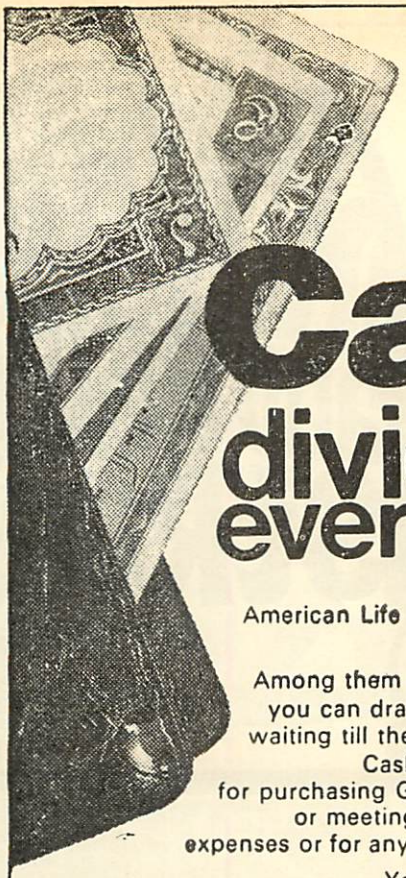

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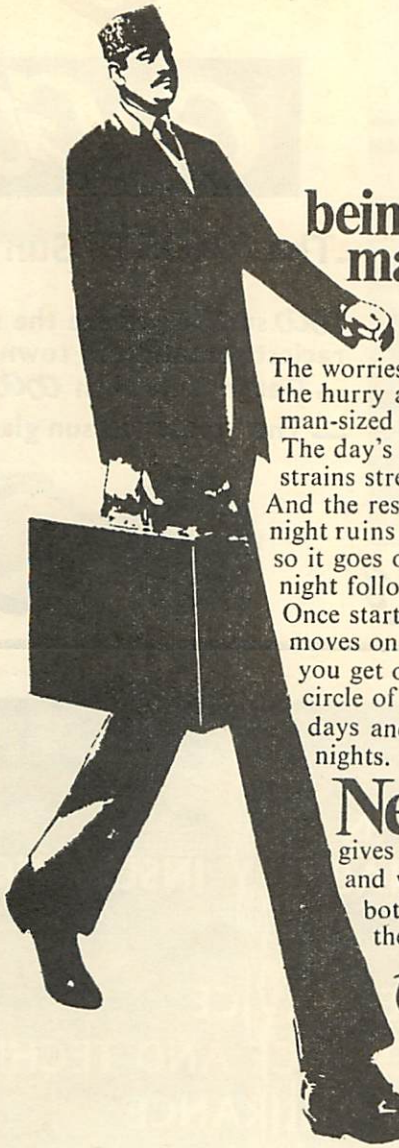

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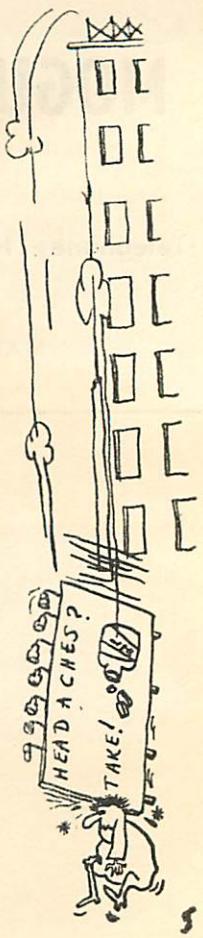

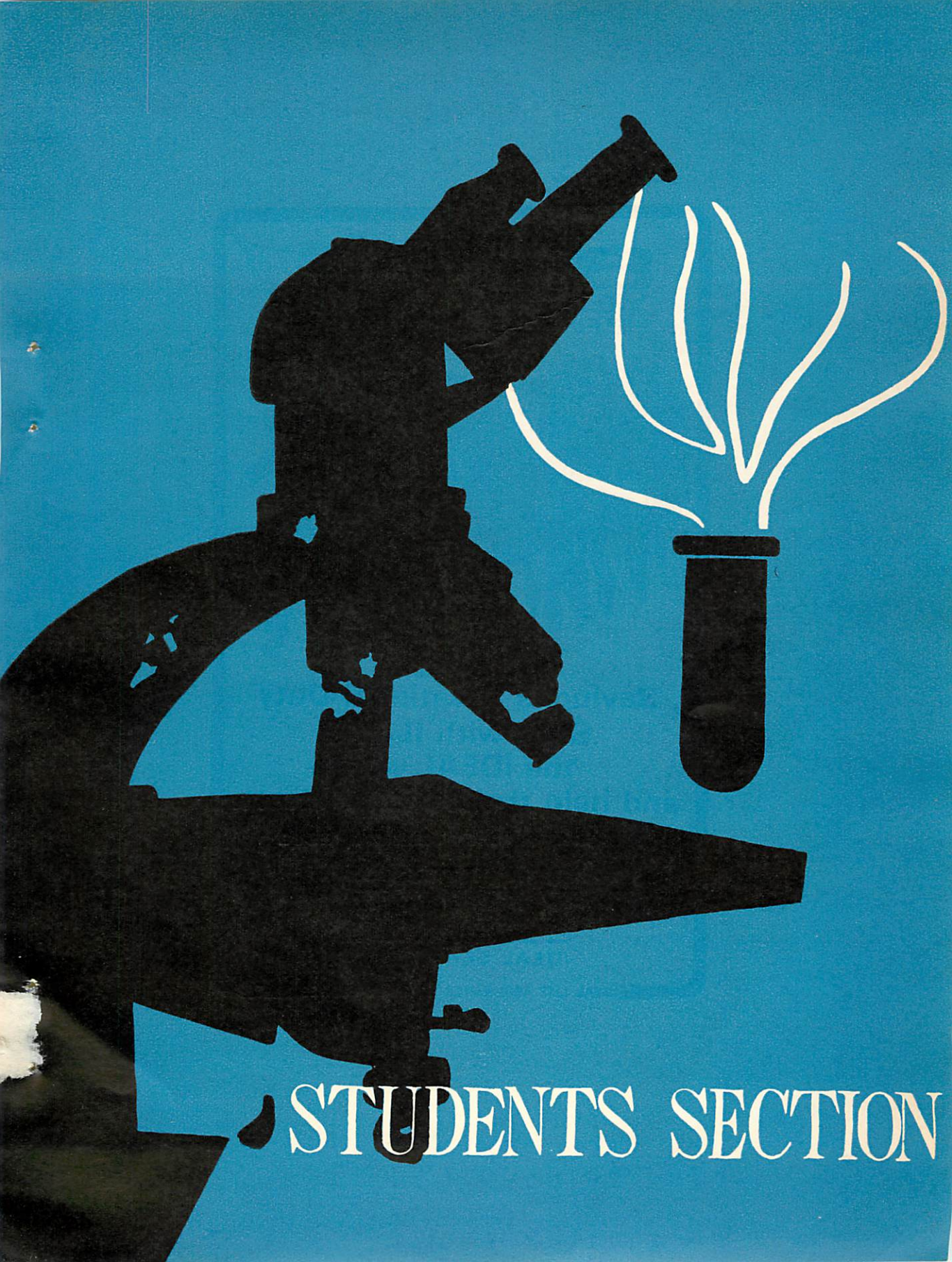
STUDENTS SECTION

The Value of Examination of the Pulse in Diagnosis

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Since time immemorial the examination of the pulse has played a most important and indispensible part in the diagnosis of a disease. The ancients devoted a great deal of attention to the pulse and wrote many times on the subject. Paul of Aegina, who practised during the 7th century A.D., distinguished 62 varieties of the pulse. Avicenna, the most illustrated physician in Arabian medicine of the 11th century, has dealt at great length the importance of pulse examination in his celebrated work on medical practise '*Al-Shifa*'. Sanctorious (1561-1636), a colleague and friend of Galileo, timed the pulse by the swinging of a pendulum that consisted of a weight attached to a cord. The length of the cord, which was adjusted until the rate of the oscillation agreed with that of the pulse, was measured on a scale and this measurement was taken as the pulse rate. Accurate timing of the pulse first became a recognised procedure when Sir John Floyer published in 1707 his '*Pulse watch*'. While the modern physicians think that many of the varieties of pulse described by the ancients were figments of imagination, they have found that certain diseases are almost invariably associated with a certain type of pulse and that certain heart diseases have pulses that are slow or fast, small or bounding, regular or irregular.

THE MEANING OF "THE PULSE"

The pulse is the wave of increased pressure which passes along the arteries with each contraction of the heart. The clinical features to be studied in palpation of the pulse are its (1) *Frequency*, (2) *Rhythm*, (3) *Force*, (4) *Volume*, (5) *Tension and character*, and (6) *The state of the arterial wall*. These features depend on the frequency and rhythm of contraction of the left ventricle, on the strength of the contractions and on the output at each beat. They also depend on the elasticity of the arteries and the peripheral resistance encountered by the flow of blood, especially in the arterioles and capillaries. On account of the peripheral resistance the pulse generally ceases at the arterioles, but when the arterioles are relaxed the pulse is often transmitted through the capillaries and may even appear in the veins. Capillary pulsation is thus to be seen in a healthy person who has taken exercise on a hot day, and it is a clinical feature of aortic regurgitation. Venous pulsation is sometimes seen in the veins on the backs of the hands in Graves disease. Visible venous pulsation is also to be seen in the veins at the base of the neck in congestive heart failure, and is due to tricuspid regurgitation. In the great veins near the heart a pulse is normally present.

For accurate record the pulse is always taken under similar conditions as to posture, time of day, relation to meals, etc. The radial pulse is generally chosen, since it is easily accessible and lies against bone (the radius). The opposite radial artery is also palpated. Inequality suggest (1) abnormally placed artery; (2) abnormal aortic arch, due either to congenital malformation or acquired disease such as aneurysm with intravascular clotting; (3) obstruction of brachial or subclavian arteries by thrombosis or embolism. The pulse can also be felt in other arteries near the surface, such as the temporal, facial, dorsalis pedis, and posterior tibial arteries, and in the abdominal aorta. To feel the radial pulse three fingers are placed over the course of the artery, the index finger nearest the heart. Allowance is made for the thickness of the subcutaneous tissues.

RAPID PULSE (TACHYCARDIA)

The rapidity or frequency of the heart beat varies considerably within the range of normal health due to variations in the rate of impulse production in the normal pace-maker (the sino-auricular node). This is called sinus tachycardia. The normal pulse rate is between 70-80 per minute. The pulse tends to be faster in the female than in the male. It varies at different ages. In the foetus and new-born infant its average rate is 140 per minute, under 1 year, 120; under 3 years, 100; from 7 to 14, 90; from 14 to 21, 80; from 21 to 65, 70; in old age, 80 per minute. The pulse is normally more rapid during the mensrual period and menopause, in the evenings and after meals. After a severe illness in asthenic states the pulse more easily becomes rapid. When the tachycardia is due to simple causes, and not the result of myocardial changes the number of the beats falls ten to twenty per minute when the patient alters his position from standing to lying. Exercise, emotion, meals, fever and sleep modify the rate, and the electrocardiogram is normal. These features differentiate simple tachycardia from Paroxysmal Auricular Tachycardia, in which the pulse rate is unaffected by posture, exercise, etc.

The pathological causes of **sinus tachycardia** are numerous (1) Pyrexia is the most common. (2) Early tuberculosis should always be borne in mind. Any other bacterial infection is a common cause. Pulse frequently is increased in the acute specific fevers, specially in scarlet fever. (3) Of endogenous toxaemias (i) Graves disease is the most common; (ii) uraemia, (iii) malignant disease, especially when undergoing degenerative changes; (iv) all blood diseases with moderate or severe anaemia (4) Exogenous toxaemia includes a large varieties of drugs and poisons, such as tobacco, alcohol, tea, coffee, thyroid extract, belladonna and atropine, (5) Nervous states, including ordinary emotional disturbance, often of trivial kind. (6) Most forms of heart disease, toxic, inflammatory or degenerative, and whether acute or chronic, increased pulse frequency is an important sign of heart failure.

SLOW PULSE (BRADYCARDIA)

A slow pulse should be verified by counting the frequency of heart beats on listening at the apex. A frequency of 60 beats per minute or under requires careful consideration, as it may be the first indication of serious organic disease such as heart block or cerebral tumour. Bradycardia may be personal idiosyncrasy and is compatible with perfect health. It is sometimes familial. In healthy subjects bradycardia is due to a slow rate of impulse production in the sino-auricular node. It is known as sinus bradycardia.

Pathologically, **sinus bradycardia** may be (1) the result of reflex nervous effects, via the vagus nerve, e.g. with an overactive carotid sinus. (2) Bradycardia is one of the cardinal features of myxoedema, and other states of lowered metabolism, such as exposure to cold, starvation, anorexia nervosa, cachexia and melancholia except in the terminal stages of these conditions (3) Toxic conditions (a) endogenous, such as jaundice, diabetes and uraemia, and (b) exogenous, such as may be due to digitalis, strophanthus and opium. (4) Bradycardia is not uncommon in convalescence from acute infections, e.g. influenza, and in exhaustion states. A pulse rate low in proportion to the fever is found in infections by the Typhoid and salmonella groups, E. coli, and sometimes staphylococcal infections and influenza. (5) Increased intracranial pressure of whatever etiology. A slow and irregular pulse may occur in meningitis. Bradycardia in heart disease is generally due to heart block. Temporary slowing of the pulse rate occurs with pressure on the vagus in the neck, and characteristically in an ordinary fainting attack.

IRREGULAR PULSE

The irregular pulse apart from sinus arrhythmia, indicates an abnormal action of the heart. The most common regular irregularities are: (1) Sinus arrhythmia (where the pulse speeds up during inspiration, and slows down during expiration), the slowing is vagal, and the irregularity is physiological (2) Pulsus bigeminus or Pulsus trigeminus (where the pulse beats in twos or threes followed by a pause), the result of regularly occurring premature beats. Broadly speaking, the causes of local irritability which give rise to premature beats are of (i) **extrinsic** or extracardiac, or of (ii) **intrinsic** or cardiac origin. Extrinsic, e.g. a distended stomach causing premature beats starting in either the right ventricle or auricle such beats disappear on relief of the distension. Some common intrinsic causes of local irritability are (a) Toxaemia; (b) physical effort (c) inflammation (d) degeneration, and (3) pulsus alternans (where big beats and little beats alternate at regular intervals), indicative of left ventricular failure.

The commonest irregular irregularities are (1) The consistently irregular pulse due to auricular fibrillation. Here the beats not only follow one another at irregular intervals, but more of unequal strength and volume. In addition the

pulse rate may differ from the apex beat. The great clinical test for the presence of auricular fibrillation is that the irregularity is increased by exercise. (2) The irregularity due to irregularly occurring premature beats or extrasystoles. This irregularity is in most cases abolished when the rate is increased by exercise.

The following is a convenient classification of cardiac irregularities:

A. Affections of rhythum due to impaired conduction through the A-V node and the bundle of His.
   1) Delayed conduction.
   2) Missed beats, partial heart block.
   3) Complete heart block.

B. Wolff-Parkinson—White Syndrome.

C. Affections due to abnormal pulse formations.
   I. Extrasy toles (1) ventricular, (2) nodal, and (3) au icular.
   II. Paroxymal tachycardia (1) auricular, (2) nodal, and (3) ventricular.
   III. Auricular flutter.
   IV. Auricular fibrillation.
   V. Ventricular fibrillation.

D. Alternation of the heart.

E. Affection due to vagal influences.
   I. Sinus arrhythmia.
   II. Phasic irregularity.
   III. Sinus bradycardia.
   IV. Sino-auricular block.
   V. Auriculo—ventricular block.

VOLUME

Alternation in the volume of the pulse may occur from beat to beat. In normal persons the volume becomes greater with inspiration because of increased venous return to the heart, but occasionally it happens that the reverse obtains—a phenomenon known as the **Pulsus paradoxus.** This may be seen physiologically if the breathing is thoracic in type or if the chest is held rigidly with the shoulders braced backwards. When these conditions have been excluded, pulsus paradoxus is sometimes found in pericardial effusion or constrictive pericarditis.

QUALITY OF THE PULSE

The quality of the pulse may also change in various valvular diseases of the heart. A collapsing or corrigon pulse occurs with aortic incompetence, whereas a slow rising anacrotic (plateau) pulse, pulsus tardus, occurs in aortic stenosis when there is little or no regurgitation through the stiffened valves. Bisferie s pulse is a combination of the anacrotic and collapsing pulses occurring in combined aortic stenosis and incompetence. Mitral stenosis causes a small pulse, Pulsus

parvus, but if mitral incompetence is marked, the pulse is full and may tend to take on the collapsing quality of aortic incompetence.

The dicrotic pulse is due to a marked discrotic wave. It is said to simulate coupled beats, but once felt it is quite distinctive. It is common in asthenic states with a full soft pulse, as in typhoid fever.

Pulseless disease (*Takayashu's disease*) occurs more commonly in Japan than elsewhere, as the result of progressive obliterative endarteritis of the vessels to the head, neck and arms, producing absent of brachial or radial pulses. The other types of pulses have been discussed along with the irregularities of the pulse.

BLOOD PRESSURE

The term blood pressure refers to the tension in the systemic arterial system, and usually to the pressure in the brachial artery. It depends on two main factors—(1) the peripheral resistence (2) the output of the left verticle. Any gross variation in blood pressure is due to alteration of one or both of these factors.

High blood pressure is due to many different causes. It is a physical sign and not a disease sui generis. In a healthy adult the resting blood pressure is fairly constant, but the limits of normal variation are wide, namely—systolic, 100-140 m.m. Hg., and diastolic 70-90 m.m. Hg. Temporary hypertension (*Symptomatic hypertension*) occurs during exercise and with emotional disturbances. It is also seen during acute attacks of gout, with a disturbance of the cerebral Circulation (e.g., increased intracranial pressure, cerebral thrombosis) and in paroxysmal attacks. Persistant hypertension can be classified as (1) Essential (*or primary*) hypertension due to generalised increase in peripheral resistance. (2) Secondary hypertension is due to (i) Renal disease; (ii) Endocrine causes, e.g. myxoedema, Cushings syndrome and Primary aldosteronism, (iii) Coarctation of the aorta (iv) Polycythaemia and polyarteritis are rare.

In health a low blood pressure is sometimes a hereditary condition. It may be aggravated by meals, a warm bath or moist heat. In disease, the chief causes are (a) Cardiac disease, especially left ventricular failure, such as occurs in coronary thrombosis and tonic myocarditis with diphtheria; (b) general conditions (i) Addison's disease, (ii) pulmonary tuberculosis; (iii) cachexia and malnutrition; (iv) shock, collapse, haemorrhage or dehydration; (v) exhaustion due to mental or physical overstrain; or following asthenic types of fevers, especially typhoid and influenza; (vi) occasionally with certain types of advanced renal diseases with senile arteriosclerosis.

CONDITON OF THE ARTERIAL WALL

In many young persons the arterial wall is so thin that on pressure it seems to merge into the surrounding tissues and to have no seperate entity. In middle age it becomes distinctly palpable, and in later decades can usually be felt as a cord-like structure.

While palpating the arterial wall, note should also be made of any irregularity in its surface and for tortuosity in its course. Irregularities are chiefly associated with those types of arteriosclerosis where calcereous material is deposited in the vessel wall, the "pipe-stem," arteries of old age, and in certain cases hard ring-like structures can be felt along the course of the vessel, giving it a semblance to the trachea. Rarely a localized aneurysm or inflammatory thickening of a peripheral artery may be found, as in giant cell arteritis.

THE PULSE IN RELATION TO PROGNOSIS AND TREATMENT OF DISEASE

The pulse frequency in febrile diseases should be charted four-hourly, so that it may be read inconjunction with the temperature and respiration rate. In an adult the pulse frequency increase 8 to 10 beats per minute for each degree rise of temperature. A pulse frequency increased out of proportion to the rise of temperature may be an indication of a toxic myocarditis, and a pulse rate of over 130 per minute in pnemonia is evidence of severe toxaemia. In child, the increase of pulse frequency with each degree rise of temperature is greater, namely 12-15 beats per minute.

Slowing of the pulse frequency in relation to fever may be an indication of heart block. A sudden drop of temperature, pulse and respiration rates together takes place at the crisis in pneumonia, but a fall of temperature without a fall in pulse rate, or perhaps even a slight increase of pulse rate, is evidence of a complication. In abdominal conditions the pulse rate may decide a diagnosis between inflammation (rapid pulse) and colic (slow pulse). A fall in temperature with an increase of pulse frequency occurs with intestinal haemorrhage, in perforation of the bowel, and with profuse diarrhoea complicating typhoid fever. The pulse rate in a febrile toxic states is to some extent a measure of the degree of toxaemia, as in alcoholic poisoning, especially delirium tremens.

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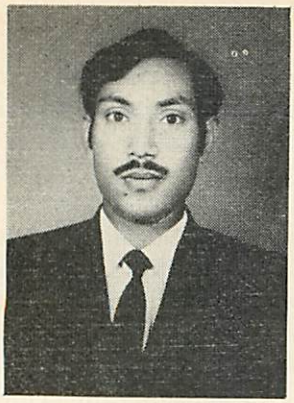

An Introduction to Anaphylactic Shock

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HYPERSENSITIVITY as against Immunity which is a manifestation of the "WISDOM OF THE BODY" (Cannon's phrase), might well be called the "STUPIDITY OF THE BODY". It is in essence an altered state of reactivity of the body.

Hypersensitivity is one of the products of modern civilization. Besides industrial environment, the conditions of today's life (such as the fashion to swallow, to inhale, to apply to the skin, or to have injected a variety of chemicals and drugs) have been bringing a tremendous increase (1% each year) in the number of persons developing hypersensitivity. These manifestations have increased to such as extent that a doctor can now make a comfortable living by diagnosing and treating them.

Hypersensitivity may be Immediate (Anaphylactic) or Delayed (Tuberculin). This article deals with the Acute generalised anaphylaxis.

A SHORT HISTORICAL ACCOUNT:

The detailed study of this curious reaction (anaphylaxis) dates from the beginning of the present century, though observations (of Mangendie in 1839, of Koch in 1890, of Von Behring in 1893, of Flexner in 1894 and of Arloing and Cournment in 1897) are on record in the earlier literature with which our fuller knowledge we can recognize undoubted examples of anaphylaxis. The term anaphylaxis was introduced by Charles Richet in 1898 to describe the sometimes fatal reaction (which was observed accidentally) of an animal to a second

injection of eel serum. In 1902, Richet and Portier first drew general attention to the experimental facts while they were studying the toxic substance present in the tentacles of Actinaria with an idea to compare it with a similar one present in physalia found in South Seas.

DEFINITION:

Anaphylaxis is a technical term used to describe an artificial phenomenon in the form of an exaggerated or extreme hypersensitivity, qualitative and quantitative, induced in various animal species as a result of injection of even a small dose of foreign material (Anaphylactogen—usually a protein). This (and also the allergy) occurs in both animals and man under a variety of circumstances and with a variety of manifestations. All of these may be considered as phenomenon of the adaptation of an individual to his environment. Development of anaphylaxis varies with the species. Similarly, the degree of anaphylaxis and the intensity of anaphylactic shock (including death) varies with the species of the animal, type of antigen, and the shocking dose (to be discussed later).

The research on, "ANAPHYLAXIS IN MAN" dates back to the year 1927, when Coea discarded the possibility of existence of anaphylaxis in human individuals. He disregarded, the few cases that have shown symptoms of acute shock and did not classify serum sickness which occurs several days or weeks after the first injection of horse serum, as anaphylaxis. Zinsser, Enders and Fothergil (1939) developed their opinion that the later would ultimately be shown to be an expression of anaphylaxis. It is now well confirmed that anaphylactic reaction does exist in man. In man, the anaphylactic reactions are of two types depending upon the portal of entry of antigen (TURK).

The first group of milder reactions occur where antigen-antibody reaction takes place at an exposed mucosal surface. The reaction occurs more commonly to pollens or animal dander, and the reaction might be limited to a simple rhinorrhoea and conjuctivitis. If the state of allergy is more intense, the bronchospasm may be produced as a result of inhalation of antigens. Patients with allergic asthma have been found to *have levels* of IgE immunoglobulins—(which contains reaginic antibodies) upto six times higher than that found in patients with "non-allergic" asthma, confirming the relation between these antibodies and this condition.

If antigen is administered parenterally as in the case of a drug such as penicillin, foreign sera or the saliva of the biting insect, systemic anaphylaxis supervenes rapidly. This is manifested in man by bronchospasm, laryngeal oedema, resulting in extreme dyspnoea, cyanosis and a marked decrease in blood pressure. There may also be nausea, vomiting and diarrhoea. Systemic anaphylaxis is a potentially fatal condition if not treated promptly. Cutaneous urticaria, the formation of wheal and flare lesions in the skin is an anaphylactic phenomenon which

can develop as a result of absorption of antigen through the intestinial tract. It more often occurs alone, but may be associated with other signs of generalised anaphylaxis. Not all urticaria are caused by immune reactions. It is known that pharmacological agents which cause urticaria can be released by other means especially physical agents such as trauma or cold. Most of the reactions found in anaphylaxis can be attributed to the release or activities of pharmacologically active agents. Of these only few have been recognized. These are histamine, slow reacting substances (SRS), serotonin (5—hydroxytryptamine), the group of related agents known as plasma kinins and possibly choline also.

It is now quite clear that anaphylaxis is the result of reaction between antigen and antibody. Before we proceed to the details of the mechanism of Anaphylactic shock, it will be better for us to review the concerned aspects of antigens and antibodies.

ANTIGEN:

Antigen in this case is called anaphylactogen. It is any foreign substance (usually a protein) capable of producing anaphylaxis in a individual. It is sometimes termed (less precisely) sensitinogen. When anaphylactogen is introduced into an animal for the first time, it sensitizes that very individual. The initial or sensitizing dose or doses of antigens may be introduced by injecting the material into the tissues, blood stream or body cavity. Sensitization through the respiratory or alimentary tract has also been noted. Always a period (called Incubation Period), intervenes between the administration of the sensitizing dose and the development of hypersensitiveness. The incubation period for a specific antigen, depends upon the species of animal concerned. In guinea pig this varies from 5-10 days (in man: 10-21 days). Once the hypersensitivity has developed, the next question that arises is that of its duration, which may last for months or even years. The duration of hypersensitivity again is dependent on the animal species. In guinea pig, it probably persists throughout the life of the animal. If during this period of hypersensitiveness, the animal concerned receives a shocking dose (shocking dose of antigen is the dose of antigen administered to produce symptoms of anaphylaxis), anaphylactic symptoms are liable to be manifested. When this dose is given subcutaneously, larger dose must be employed. The best results are observed, if it is administered intravenously or intraperitoneally, although subdural and intracerebral routes may be employed. Shocking dose is generally larger than the minimum sensitizing dose, although not necessarily so. For maximum effects, it should provide an adequate concentration in the blood within a period of 30-60 seconds.

Now let us study the role of antigens in stimulating the production of antibodies.

The mechanism of antibody production seems to be related to the size of the foreign agent. When the invader is a small enough molecule, the body develops tolerance. But when the antigenic molecule is fairly large, the body's immune mechanism comes into action. Dr. J.V. Nossal (of the Walter and Eliza Hal Institute of Medical Research in Melbourne, Australia) experimentally proved in 1967, that the molecular weight appears to have a directly proportional effect on the antigenecity and an inverse relationship to tolerogenic state. (Roy E. Ritts Jr.). Besides molecular weight, there are a number of other factors which control the production of anaphylactic antibodies, viz. Presence of certain amino acids of determinative group; Presence of aromatic rings, complexity of the molecules, Rigidity of the molecules of antigenic substances, Geometrical disposition of the molecules.

ANTIBODIES:

Antibody is a modified type of serum globulin synthesized by the lymph tissue in response to the antigenic stimulus. Of the two groups (Conventional Antibodies belonging to immunoglobulin classes: IgG, IgA & IgM, and Reaginic Antibodies belonging to immunoglobulin class IgE), reaginic is thought to be responsible for the different manifestations of anaphylaxis. They have the increased ability to adhere to the tissues and thus any reaction between antigen and reagin takes place on the surface of the tissues, and it is these tissues which respond to the anaphylactic phenomenon.

As reagins adhere strongly to the tissues, they are often called tissue sensitizing antibodies. If serum containing reagins is injected intradermally, the area injected will remain responsive for over 48 hours. This is the fundamental basis of the PRAUSNITZ—KUSTNER reaction (P—K test) for the presence of these anaphylactic antibodies in the human.

As humoral antibodies are serum protein, passive sensitization (Passive sensitization is the transference of hypersensitiveness to a normal animal by injecting blood containing specific antibodies obtained from an actively sensitized animal—donor) can be produced by the transference of serum from an individual to another. The duration of hypersensitiveness thus produced varies in different species. It persists longer, when homologous immune blood or serum is used than when the antibodies are obtained from different species. Passive transfer can produce a generalised state of sensitization if the serum from a sensitized individual is injected intravenously. However, if the serum is injected intradermally, only a local state of sensitization is produced in the areas of the skin into which the serum has been injected. A state of generalised sensitization will last as long as the anaphylactic antibodies (also called SENSIBILISIN—BESREDKA'S term) are present in the circulation.

Having reviewed the concerned aspects of anaphylactogens and anaphylactic antibodies, we go on to the study of mechanism of Anaphylactic shock.

MECHANISM OF ANAPHYLACTIC SHOCK:

Anaphylaxis was early explained on the basis of cellular hypothesis, according to which antigens react with sessile antibodies attacked to body cells. Antigen—antibody reaction was thought to stimulate cellular disturbances which induced characteristic syndrome of anaphylactic shock (Carpenter).

Present conception about the mechanism of anaphylaxis is based on the Humoral Mechanism. Two opposing views have been established (Topley and Wilson).

> According to one, the reaction between the antigens and antibodies occur in the circulating blood or in the tissue fluids. In this way a toxic product called anaphylatoxin is liberated. Subsequently, it acts on the susceptible cells to give rise to characteristic syndrome.

This theory was first of all formulated by Lewis (Histamine theory of Lewis—1927) and later supported by certain experimental studies of Code, Dragstedt and Dale. Dale postulates the presence of a histamine like substance (H—substance) in looser combination with the tissue cells. There also exists some modifications of this theory which does not restrict the toxic substances to histamine. (The experiments in support of this theory are well explained in "IMMUNOLOGY" by "SHERWOOD").

> According to the other theory the primary reaction occurs not in the blood or in the tissue cells, and that reactions which characterize acute shock are due not to any toxicity of the antigen—antibody component itself or of any derivative from it, but to cellular disturbances initiated by the antigen—antibody reactions.

This explanation is either a part of or implied by the physical Theory of Weil, the Membrane Hypothesis of Doerr and the Inflammation Theory of Opie. There are a number of observations which favour the Physical theory. A summary of these has been mentioned by Sherwood in his book—"IMMUNOLOGY". This theory bears more weight as it can explain the smooth muscle reactions of Schultz and Dale as well as the clinical sysmptons of shock.

DIAGNOSIS AND DIFFERENTIAL DIAGNOSIS:

History is very important. Anaphylaxis occurs occasionally and that too, only in conditions provided by man, i.e. in experimental animals and rarely as an

accident in serum/drug therapy. True anaphylaxis is not observed in naturally occurring infections. The anaphylactic shock is immediate and occurs within a few minutes. Mostly it is observed in allergic hypersensitive people (such as patients having asthma). Past and family history are also of great help. Signs and symptoms of anaphylactic shock are well illustrated in the figure.

The differential diagnosis lies between true "Anaphylactic Shock" and false anaphylactic shock (Anaphylactoid Shock). Resemblances are certainly striking and it seems that certain common factors are operating. But there are certain differences both in living and on autopsy. Anaphylactoid can be produced by the I/V injection of substances (anaphylactoid reagents) such as bacteriologic and ordinary peptones, typhoid vaccine, bile, agar, gum acocia, starch, trypsin and arsphenamine and a wide variety of organic colloids. Even serum from a normal animal becomes "toxic" after being incubated with such substances as kaolin, barium sulphate, starch or agar. Whole blood may give anaphylactoid reaction if withdrawn and reinjected in the "Pre-clot" stage. The syndrome produced differs a little from one anaphylactoid reagent to another, and with none does it completely and in detail resembles true anaphylactic shock.

Wells (1929) put forward certain "CRITERIA OF ANAPHYLAXIS" so as to differentiate between anaphylactic shock and anaphylactoid, which does not depend upon the antigen-antibody mechanism. These criteria are listed below:

(1) The observed toxicity of the injected material must depend upon the sensitization of the animal, i.e. substance must not produce similar symptoms in non-sensitized animals.

(2) The symptoms produced must be those characteristics of anaphylactic intoxication as observed in the usual reaction with typical soluble protein, being therefore the same for all antigens with the same test animal, but differing characteristically with each species of animals.

(3) It should be possible to demonstrate typical reaction in the non-striated muscle tissue of sensitized animals.

(4) The possibility that the observed symptoms are caused by capillary thrombosis or embolism must be excluded.

(5) After recovery from anaphylactic shock, there should be exhibited a condition of specific desensitization to the same antigen under proper conditions.

(6) In addition to the above, it is usually but not always possible (a) to demonstrate passive sensitization with the serum of sensitized animals; and (b) to demonstrate amelioration or prevention of the bronchial spasm in guinaepigs by proper use of atropine and epinephrine.

(NOBLE PIERCE SHERWOOD)

Zinsser (1931) is of the opinion that criteria Nos. 4 & 6 (b) may be omitted, since he regards the rest as adequate.

TREATMENT

The subject of treatment will be dealt with under two sub-headings: (1) Curative Treatment to be given the moment, we see a case of anaphylactic shock, and (2) Preventive Treatment. Latter will be discussed in the section on "MEASURES TO PREVENT THE PRODUCTION OF ANAPHYLACTIC SHOCK".

About the curative treatment, ("Ref. 1, 4), it requires very intelligent and immediate look after, as the symptoms may develop within a few minutes and the alarming state may lead to rapid death. The patient is laid down with the feet raised. Clothing at the neck is loosened so as to permit free airway. Cardiopulmonary resuscitation should be started with immediate effect. In general the treatment consist of I/M injection of 1.0 ml. adrenaline 1 : 1000 solution. But if the sensitizing substance has been injected S/C or I/M, then the adrenaline should be injected at the same site. The rest of the treatment goes in accordance with the types of reaction observed.

1. Respiratory distress: It is improved by introducing a large French's needle through the cricothyroid membrane with an idea to provide endotracheal oxygen. I/V Injection of 20 ml. Calcium gulconate is also of value. If pulmonary oedema occurs, hydrocortisone succinate 100 mg., should be given intravenously.

2. Generalised convulsions: For this 50 mg., 2½% thiopentone is administered intravenously and repeated in 5 minutes if necessary.

3. Peripheral Vascular Failure: This requires phenylephrine 1 mg., I/V and intravenous hydrocortisone. Nor-adrenaline drip or metaraminol is an alternate drug.

4. Sudden Cardiac Arrest: Cardiac massage should be done immediately. The heart must be re-started within 3 minutes.

MEASURES TO PREVENT THE PRODUCTION OF ANYPHYLACTIC SHOCK:

In view of the increasing tendency to develop anaphylactic shock, this subject has become of great pratical value. As already stated that anaphylaxis occurs only in conditions provided by man, i.e. in experimental animals and occasionally in drug/serum therapy in man. A number of drugs have been declared as responsible factors for this phenomenon. Antibiotics and sulphonamides are commonly

blamed for this. It does not mean that these drugs are more reactive towards this phenomenon, but it is their excessive and unwanted use which has created this critical situation. Whenever serum/drug therapy is indicated, tests must be done before use, i.e. the response (normal or hypersensitive) of the individual towards this drug must be detected. Quiet good and satisfactory tests have been introduced and are in general practice. Their degree of certainty may vary, but none of these has lost its importance in toto. A brief description of these tests with appropriate comments and discussion is given below.

DIRECT SKIN TEST:

The substance is either scratched into the skin of the forearm or injected intracutaneously. Positive reactions are observed in 15-30 minutes, which resemble the *Triple Response* of Sir Thomas Lewis (1. Local Capillary dilatation, 2. Oedema or wheal formation, 3. A peripheral zone of arteiolar dilatation). Many different extracts may be tested at the same site.

Skin tests are, however, not free from danger (Ref. 16). More or at least one case has been recorded resulting from each of the following reagents/allergens: Mustard, cotton seed, flax seed ginger, buckwheat, mushroom, sea food and nut meat. A syringe filled with adrenaline and a tourniquet (so as to stop the absorption of the injected material while it is being injected) should always be available when skin tests are being performed. Feiberg has, however, introduced a much safer method for testing the hypersensitivity to drugs like Penicillin. He recommended that scratch test should be done with a solution of crystalised penicillin which contains 50 units/ml. If this test is negative, 0.02 ml. of a solution which contains only 1,000 units/ml. should be injected intracutaneously. Kern suggested that scratch test and eye test should be made with a solution which contains 10,000 units/ml. and, if they are both negative, 0.02 ml. of the same solution should be injected. *Curran and Goldman* (1961) after thorough investigations, advised that positive reaction should be that only in which "Wheal and Flare" covers an area of 10 mm. in diameter or greater.

From the facts mentioned in the foregoing paragraph, it can be concluded that no therapeutic agent is without its risk. But sometimes it becomes quiet essential to give a particular drug to an individual even when we are aware of its reaction in him/her. For this purpose we take special precautions; they are explained in the section on "GENERAL DISCUSSION".

OPTHALMIC OR EYE TEST:

Few drops of the reagent are instilled into the eye and the reaction observed in 15-30 minutes.

Recently few more tests have been introduced. These are of great value in the diagnosis of drug allergy (Ref. 8).

(i) *VITRO TEST No.* 1 : It measures sensitivity to drugs by the transformation into blast cells of small blood lymphocytes cultured in the presence of medication such as penicillin or aspirin.

(ii) *VITRO TEST No.* 2 : This depends upon the sensitization of monkey ileum by serum from patients allergic to penicillin and the subsequent contraction of the smooth muscle on exposure to penicillin in a Schultz-Dale Bath.

(iii) *VIVO TEST*: The drug in question is applied to an abraded area of skin, and a coverslip skin window is placed over the test area. The specific accumalation of eosinophils on the skin window is measured after 24 hours. (THE MECHANISMS WHICH CONTROL THESE TESTS, ARE NOT WELL UNDERSTOOD).

For therapeutic purposes a hypersensitive or a sensitized individual can be rendered hyposensitized, (Zinsser). Procain hydrochloride 1G in 500 ml., of physiologic saline is administered to relieve itching and oedema of serum sickness and also in a similar type of generalised reaction as in the case of penicillin sensitivity. The antihistamine drugs give fairly successful results. The first therapeutic dose is injected into an arm or leg, so that a tourniquet can be applied if the patient shows sign of anaphylactic phenomenon. In all instances adrenaline 1 : 1000 should be available in a syringe on the bedside table, so that it can be administered promptly to counteract the symptoms of anaphylaxis. Sometimes the hypersensitive people developed anaphylactoid or anaphylactic reaction even after the course of hyposensitization. After a non-fatal reaction, the patient is usually hyposensitized temporarily and more serum/drug can be given during the next 12-24 hours without any untoward reaction. (Zinsser)

Now, let us have an idea of desensitization (a therapeutic measure). When an animal which is known to be sensitive to a foreign protein receives a dose of the protein or some similar substance and goes into a state of shock, and subsequently recovers; in such an event a 2nd dose of protein given soon afterwards (within 10 days) fails to produce anaphylactic shock (Hare).

The specific desensitization of sensitized animal is obtained (Topley and Wilson), in place of acute shock, if a very minute dose of antigen is given and repeated, or if rather larger doses are given by a route such as subcutaneous, which ensures slow absorption. The essential condition for success appears to be the administration of an amount of antigen that is adequate in total by some method that prevents any rapid accumalation in the circulating blood. (It is stated that desensitization thus obtained is purely temporary, and anaphylactic and hypersensitiveness develops in a few days or weeks). But if (quoted in reference 6) the animal does not develop anaphylaxis after the 2nd injection, it remains immune for ever.

GENERAL DISCUSSION

An attempt has been made to clarify most of the confusing points about the anaphylactic shock, yet I personally consider that certain questions might arise in the mind of readers, e.g.

(i) Why a person is hypersensitive and others not?

(ii) Cases are on record that an individual receives anaphylactic shock, even with the 1st dose—why?

(iii) What should be done in case a person is hypersensitive to a drug, but that very drug is essential for his life at that moment?

(iv) Individuals supposedly rendered sensitive may not develop symptoms following Injection of a shocking dose—why?

As already mentioned that production of active anaphylaxis requires three definite steps, viz. sensitizing dose, incubation period leading to the sensitized state and finally the shocking dose. Unless a person is sensitized, the reaction cannot occur. How a person gets sensitized?—is still a controversial matter; basically it is the introduction of specific antigens into the body of the individual. The capability of this antigen to produce antibodies is dependent upon a number of factors which have been mentioned in the section on Antigen. Heredity does play a role in it, but it is the tendency to develop hypersensitivity and not the disease which is transmitted. For example if the parents have had asthma, the children may have eczema only. Paranteral administration is not the only route of sensitization, but a person may be sensitized through Alimentary or Respiratory tract. A person can also be sensitized by some allied antigens, e.g. capsular agent of type XII pneumococcus resembles serotype of Klebsiella; some plants have produced pneumococci serotypes, etc. There is also one more possibility. Anaphylaxis can be passively transferred from mother to her offspring. That means, if mother is given an injection and her offspring be injected with her blood, then with an injection of the sensitizing substance, the offspring will develop anaphylaxis. It can be concluded therefore that a previous history of sensitization is a basic step in the production of anaphylactic shock.

Sometimes it so happens that history or clinical test indicates the hypersensitivity of an individual to a reagent/drug (say Penicillin), but its administration is very essential at that moment for his life. In such cases certain precautions should be kept in view (Zinsser.) The drug should be injected into the fore-arm or leg, so that a tourniquet can be applied if a reaction begins. Epinephrine in a dose of 0.5 ml. of a 1:1000 dilution should be given of which 0.2 ml. can be injected at the site of penicillin injection. In severe reactions 0.2 ml. can be given I/V, if blood is drawn into the syringe to dilute the epinephrine. The 0.5 ml. dose of the epinephrine should be repeated every three to four minutes. When the patient is out of shock, antihistamines can be given by mouth. Diphenyhydramine hydrochloride (BENADRYL) 50 mg., and 10 mg., may be administered intrave-

nously or intramuscularly. Aminophyline I/M may be helpful in the presence of asthma. Artificial respiration followed by oxygen therapy may be necessary, if the patient is in severe shock when seen.

Now a few words about penicillin—It has been experimentally proved that antigen in commercial penicillin is a protein which sensitizes one in every hundred patients. When the protein fraction is eliminated, no reaction occurs at all. It can thus be hoped, that some of the penicillin side effects may one day be washed down the drain (quoted in reference 8).

About the last question——actually it is due to the presence of a refractory state which does not permit the symptoms of anaphylactic shock in an individual to develop even when a shock dose of antigen is given. This may be due to several reasons which are enumerated as follows (Ref. 12).

(1) They may not have been made sensitive either by the injection of antigent or by passive transfer. Antigen vary in their sensitizing capacity to respond and become sensitive.

(2) The animals are in refractory state following shock, or the injection of desensitizing doses of antigen. This is due probably to the fact that the antibodies attached to the tissue cells are exhausted or saturated with antigen. This refractory state is called "anti-anaphylaxis" (Besredka and Steinhardt's term).

(3) When the antibody content of the blood stream is high, the animal may not develop symptoms following the injection of antigen. It is thought that this is due to the union of antigens and antibodies in the blood stream and for this reason, the former is not available to unite with the antibody bound by the tissues. This is called "Masked Anaphylaxis."

(4) Animals may be protected by drugs. Drugs like atropine, adrenaline, chloral hydrate, and even ether when administered to guinae pigs tend to reduce the severity of the symptoms and prevent death in a fairly high % of cases. They have no effect upon the antigen-antibody reaction, but effect tissue mechanism only.

(5) Bronfenbrenner's (1914, 1915) experimental results suggested that a refractory state may occur when the antitryptic index is high.

SUMMARY

This article is an attempt to visualize some gross facts about anaphylactic shock.

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Clinical Symptomatology of Dysuria

Dr. S.K.R. Zaini

Final Year M.B.,B.S.

Difficult or painful micturition is termed as Dysuria. It is the system most frequently encountered among patients with disorders of Genito-Urinary Tract. The patient may complain of burning, stinging, discomfort, pain, or abnormal flow of urine. Disorders involving the lower part of genito-urinary tract produce dysuria more frequently than those involving the upper part.

LOWER GENITO-URINARY DISORDERS

Most inflamatory and obstructive lesions of the urinary tract below the urinary bladder may produce dysuria. Among the more common of these are Prostatic enlargement caused by hypertrophy or carcinoma; Inflamatory processes of the urethera, such as Gonococcal uretheritis and strictures caused by other inflamations or injuries. The less common lower genite-urinary disorders producing dysuria include hypospadias, congenitally small meatus, which may cause dysuria followed by signs and symptoms of ascending urinary infections, and uretheral prolapse which is often accompanied by intermittent discomfort during micturition.

UPPER GENITO-URINARY DISORDERS

Inflamatory and obstructive lesions of the upper genito-urinary tract, involving the bladder and lower portion of the ureters may also be accompanied by dysuria. These disorders which may be primary or secondary, include descending infections from the renal parenchyma, primary inflamations of the bladder (particularly cystitis involving the trigone), calculi in the lower part of the ureters or the bladder, and neoplasm.

Patients with Acute Glomerulonephritis may have presistent dysuria, as well as proteinuria and gross hameaturia. These symtoms and findings, however, may be overshadowed by others, that are more troublesome, such as, pain in either of costo-vertebral angles, dependant oedema, and symptoms resulting from hypertension.

SYSTEMIC DISORDERS

Although tuberculous infections of the urinary tract may cause few if any symptoms initially, dysuria and polyuria may be early manifestations of renal involvement. Unexpalined and persistant dysuria should be investigated. If renal tuberculosis is present, studies may reveal proteinuria, haematuria, pyuria, and presence of acid fast bacilli. Involvement of the bladder and surrounding tissues by periarteritis nodosa may also cause dysuria and gross haematuria.

SUMMARY

GENITO-URINARY TUBERCULOSIS—The condition is often asymptomatic intially, but dysuria, haematuria, proteinuria and bacilluria may be present, primary lesions are usually extra-urinary.

ACUTE GLOMERULO-NEPHRITIS—Persistant dysuria due to glomerulo-nephritis, may be accompanied by gross haematuria, protenuria, costovertebral pain, and symptoms of hypertension.

CALCULI—Most often found in elderly men, calculi originate in the kidney and cause polyuria, haematuria, and pain after micturition, H/O passing gravel is not un-common.

VESICAL NEOPLASM—Lesions, benign or malignant are relatively common, urgency, frequency, tenesmus, and haematuria occur.

CYSTITIS—Usually secondary, cystitis causes dysuria, frequency and pyuria. It is the most common vesical abnormality occurring in children.

PROSTATIC ENLARGEMENT—Obstructive Lesion may be benign or malignant, Dysuria, slowness in starting stream, and nucturia are frequently present.

URETHRAL STICTURE—Narrowing, which may be congenital, spasmodic, or accquired may cause pyuria, frequency, decreased projectility of stream, dribbling and dysuria.

Reflections

Syed Irfan Ali

Final Year M.B.,B.S.

With bombs dropping in their fields,
And shelling near and far;
Two innocent children ask a man,
"Papa: What is War?"

One day I saw an old man
Lift up his hands and cry;
"Oh God? I have the strength to live;
Why can't you let me try?"

The Muezzin's cell pierced his ears,
And he cried nearing his brink;
"If you were born and bred like me;
You too would come and drink".

Ages have brought these great men,
Yet human nature is the same,
The animal lives to kill and hurt;
And play the age old game.

I saw a vision of children being born,
But I had no Love to give;
And all of them implored and begged;
"We also want to live".

"pure mild Lux takes gentle care of my complexion" Alia

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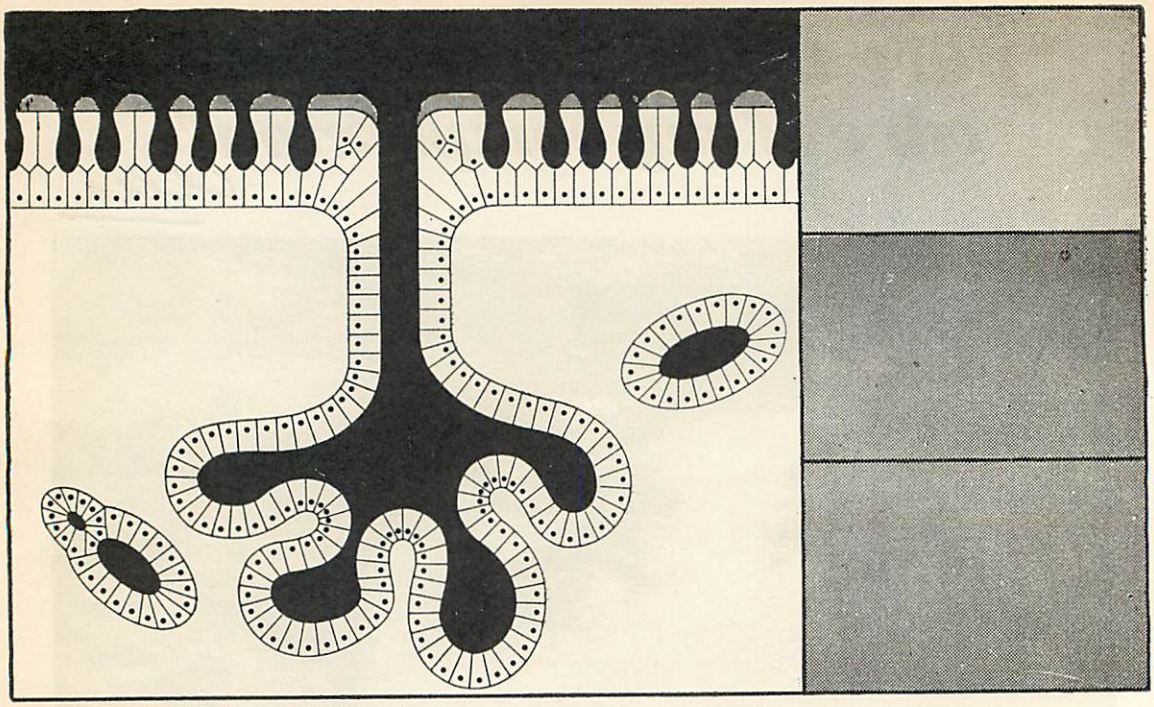

Viscous mucus
complicates the clinical
course
of acute and chronic
diseases of the
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BOEHRINGER
INGELHEIM

Have You Time to Waste?

Rafi Rashid

Final Year M.B.,B.S.

(**No?** Then shove off).
(**Yes?** Then read in the name of confusion, and be wise).

All over the world
People are doing
IT.

??????????

Spying.

The feelthy Yanqui imperialistic peegs are spying on the Rooskies, are spying on the Chinks, are spying on the bloody British make the best spies—so now the Japanese are going to make them smaller and cheaper.

Ah, so. Sank you.
What, then, me boyo, is a spy?
Definition:—a spy is a spy is a spy as they say.

Classification:—spies may be classified ont he basis of their physical characteristics into acute, sub-acute and chronic spies.

Acute spy (also called a cute spy, or cutie pie—the S being silent, or sugar, or babe, or bunny, or kitten, or doll or etc., etc., etc.). Physical characteristics—40-24-36=aaaaaaaaooooooooweee.

Sub-acute spy:—Sub means under 'Acute' has already been defined. The rest is left to your dirty immagination.

Chronic spy:—a chronic spy is a spy about whom more than one film has been made, e.g. James Band, I mean, James Bend, that is, Bind, no, Bund .... no..... Anyway. You know who I mean. Old whatsisname from the shaving cream ad.

Short-break.
A Pill in time saves Nine.
Resuming.

Aetiology:—the aet. of a spy is as yet unknown, but it is believed to be

due to the Killer Instinct, a grade I-A filterable and very virulent virus which has a special affinity for bus-drivers, truck-drivers, lady-drivers and lady doctors, (and other crazy and dangerous animals).

(ATTENTION: For those lady doctors who are going to be our examinners the above is meant as a joke).

Clinical Features:--the s/s of a spy may be listed as follows:—

By itself, No. 5:—the jet-set spy is tall,
Half-way house, 45:—dark,
All the threes, 33:—and menacing.
Half a doz., No. 6:—The general aspect of the jet-set spy is as follows:—The j-s spy is young and has curly shoulder-length hair. The j-s spy wears pancake make-up—eye-shadow, powder, rouge, and lipstick in the appropriate places. The j-s spy wears earrings, and two necklaces, and also a see-thru' blouse which has two large flowers embroidered on it in the appropriate places. The j-s. spy wears bell bots, bracelets at the wrists and trinkets at the toes.

And, to make a short story even shorter, the above mentioned j-s. spy is a MAN.

YEECHH!
Short-break.
Familiarity breeds attempts.
Resuming.

No. 10, Downing Street:—the supersonic jet-set spy wears salmon-pink tennis shoes.

Question: Why?
Answer: Why not?

No. 2, Dinkey -Doo:- the supersonic jet-set get-set spy is quick on the uptake and even quicker on the take-off.

Example.
A beautiful young girl (unmarried, of course) comes to YOU and C/O:—

1.	Amenorrhoea	3 months.
2.	Morning sickness	6 weeks.
3.	Enlargement of the abdomen	2 weeks.
4.	Frequency of Micturition	2 weeks.
5.	And, Last but not Least, enlargement and tenderness of the breasts	1 week.

Right.
Now.
As the up-and-coming jet-set-get-set spy what would YOU do under the above mentioned circumstances. Mark off one of the following:—

1. Run, man, run. ——————————— (Nah)
2. Go west, young man, go west ——————————— (Nah)
3. Join the Khthyber Rifles ——————————— (Nah)
4. Cry, plead, beg, threaten, and then with a sorrowful sigh (sighed from the southernest parts of your southernestest borders) take out your pen and cheque-book ——————————— (Sucker)
5. Clain diplomatic immunity——————————— (YEAH).

(Score 1 point for extreme quickness and presence of mind above and beyond the call of duty).

Right.
So.
Right. So.
Right. So, you say yeah.
Right. So we say yeah.
Right. So we say exactly.
Right. So we say encore.
Right. So we say bravo.
Right. So we say yeah exactly encore bravo.
But.

But you are an up-and-coming jet-set-get-set-quick-on-the-uptake-and-even-quicker-on-the-take-off-spy.

So.

So are they all, all up-and-coming-jet-set-get-set-quick-on-the-uptake-and-even-quicker-on-the-take-off spies.

Short-break.
When in Rome do as the Romans do. Don't.
Resuming.

Two fat ladies, 88:—A spy no matter how jet-set, get-set, or upset he/she/whatever may be NEVER BUT NEVER chases two fat ladies.

Not even one fat lady
Not even one fat

Not even
Not
No
N.

Hey, you! Hey! Stop! Stop! Come back here! Come back, here, I said. Heel, boy, heel. Heel. Heel. Remember your training. Remember your oath. Remember what you are. Remember what you stand for. And for goodness sake stop crying. If its one thing I can't stand its to see a grown-up man crying. Hush now. Hush. Quiet. Quiet, I said Shut up. SHADDUP. SHADDUP. SHADDUP, I said SHAD.....

Short break.

Father of 10 shot. Mistaken for a rabbit.

Resuming.

.....DUP.

Please, teacher, No. 1:—Not here, sonny. Outside.

69, upside down:—Ah, Well. Thats Show biz.

No. 3, D.P.T. (the Vaccine, you dope, the vaccine). For the up-and-comming budding (or blooming, or pollinating) young medico the letters D.P.T. refer to the dreaded diseases diphtheria, pertusis and tetanus but for the young, ambitious, leacherous jet-set-get-etc spy the letters D.P.T. are the code letters for wine, women and song. Thus:—

D=Dipsy.

P=Pipsy.

T=Tipsy.

Short-break.

Baby born with beard. Mother tickled to death.

Resuming.

T.T. of a spy:—Do unto a spy before a spy does unto you.

Prognosis of a spy:—Spies may come and spies may go, etc.

Prophylaxis for a spy:—We have said it before and we will say it again, "A Pill in time saves Nine."

Well, friends, thats it.
Parting is such sweet sorrow, etc.,
But.
Before we bring the curtains down, a word from our sponsors:—

"This is to certify that the author of the above written lines is NOT, REPEAT NOT, mad, insance, crazy and/or nutty and therefore does not need to be admitted or committed to a lunatic asylum or to any other house of care, or to be restrained or restricted in any way whatsoever.

Signed and submitted on this fine day,
(Captain's Log) 1971.813,
by:—

1) *Sigmund Freud.*
2) *Alfred Jung.*
3) *John Foster Dulles.*
4) *John Edgar Hoover.*
5) *Rafi Rashid.*

Post-script.
And finally.
End of the Line, blind ninety, 90
HOUSE.

Science and Islam

Mohammed Amin

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

BELIEF:

Belief means to accept according to Quran. It includes two factors. (1) to declare and (2) to verify it by heart. Islam makes us believe in seven things, (1) Allah (2) His Malaik (Angels) (3) His Books (4) His Prophets, (5) Day of Kayamat, (The Day of Judgement) (6) Good and bad taqdeer (Luck) by Allah, (7) Life after death. Now we shall prove the correction of these believes by the scientific arguments.

1. ALLAH: The scientists regard that every thing is brought about by nature and nature cannot be changed. The question arises that who controls nature? Is it self controlled? The answer is No, as we know that we have certain natures but we do not control them although we are living beings. How can a non-living thing be able to control its nature and never go against it. It is certainly controlled by a certain power, which is power of Allah. It is this power which imparts nature and subsequently regulates the universe. Now this power can be felt existing throughout the universe in the form of Noor in accordance with Quran.

ALLAH IS THE NOOR (light) OF HEAVENS AND THE EARTH SIMILITUDE OF HIS LIGHT IS AS A NICHE WHEREIN IS A LAMP

Noor of Allah is distributed throughout the earth and skies and it is examplified by the case of burning lamp where light is distributed throughout the room. The existence of Allah in the form of Noor throughout the universe and his powers as stated above are synonymous i.e. two aspects of the same thing, which is in accordance with the following verses of Quran. ALLAH IS ONE, ALLAH DOES NEITHER EAT NOR DRINK NEITHER ANY ONE IS HIS DESCENDENT NOR HE IS DESCENDENT OF ANY ONE; NOR ANY ONE BEARS QUALITY WITH HIM. ALLAH IS ALIVE AND HE IS CONSTANTLY EXISTING. HE HAS BEEN EXISTING FROM EVER AND WILL EXIST FOR EVER. WHATSOEVER IS IN THE EARTH OR SKIES (HEAVENS) IS HIS. It is evident since he regulates and he has created it ALLAH CAN DO WHAT SO EVER HE WANTS TO. And so He does, consequently. WITHOUT WILL OF ALLAH NO LEAF CAN MOVE. Now everyone of us is in a state to claim, "I BELIEVE IN ALLAH AS HE IS WITH HIS NAMES AND PRAISES I ACCEPTED ALL HIS ORDERS, I CLAIM THIS AND VERIFY BY THE HEART."

All praises of Allah given in Quran confirms our given proof in the same manner or a few important ones cited before.

2. *HIS MALAIK*, Allah says, THE UNIVERSE COMPROMISES ONE PART WHICH IS PERCEPTIBLE AND ANOTHER PART WHICH IS NOT. The perceptible world is what we investigate about in science. Imperceptible part of world being not known to us may be even more extensive and complicated then the perciptable one. Of this, Allah tells us about perceptible World, a man after studying throughout his life can attain a very small part of knowledge which is comparable to a droplet from sea. THIS ALLAH says, AND DID NOT GIVE TO YOU KNOWLEDGE BUT LITTLE. Now if Allah tells us that there are Malaik then it is quite believeable and we have to believe him, we are not in a state to discuss much about their condition of existence at present.

3 and 4: *BOOKS AND PROPHETS*: God is not himself seen by us. He tells us some mysteries by sending us books so telling us his will and distinguishing between good and bad. One of the Malaik called JIBREEL, becames visible to prophet in order to tell him The orders and signs of Allah. The collection of this orders and signs is called Book of Allah. Now we can say "As Science and Quran confirm each other, No one is able to be worshipped but Allah and Mohammad is his Prophet". Mohammad is the last Prophet and Quran is the last book of Allah as told by him.

5. *DAY OF QAYMAT (Day of Judgement)*: As we know that every thing according to nature has a beginning and End. So once our galaxy system will be destroyed and this day is called doomsday. This is very well proved scientifically by "the Second law of the theemealy namis" which states, "heat death of universe". Hence Islam is the most scientific religion, itself being a Philosophy.

6. *GOOD AND BAD TAQDEER*: We are familiar with the fact that we human beings are bound by our nature and we can live in accordance with it. Our nature and environment is provided by power of Allah. So He knows that what sort of environment he is providing us and what shall we try to do, under the influence of our nature. So he has its record which is called 'TAQDEER'.

Natural laws are so set, that a man sometimes suffers and sometimes becomes happy. As it is by power of Allah we believe in good and bad taqdeer, to be set by Allah in accordance with the nature. Sometimes we try to do something but we fail to do it, because of natural limits. This is called Bad luck. If we succeed, it is called Good Luck.

The application of this Philosophy in life is that to do the best and what cannot be done should be left to Allah and time should not be wasted uselessly in thinking about it. If you get success, thank God and if otherwise, do not worry

because it is by his Will. Turn to no one else but Him, during difficult and easy time.

7. *LIFE AFTER DEATH*: As we come to understand in previous discussion that ALLAH CAN DO WHAT SO EVER HE WANTS TO. Now, if Allah says after your death I will make you alive again, it is quite acceptable. We have no control of nature, nor we can make any one dead or alive, neither we have control of our life. But Allah is able to do it as He says IT IS I WHO MAKES YOU FROM (the material of) GENITAL FLUID, IT IS I WHO MAKES YOU *DIE*, AND IT IS MY RESPONSIBILITY TO MAKE YOU ALIVE AGAIN.

The Shadow of Your Smile

Fauzia Quddus

Final Year M.B.,B.S.

The shadow of your smile
Release my hopes,
Makes my spirits rise;
Erases my mopes,
Opens a new file
To the gradual revelation,
A miracle of observation;
From the shadow to the smile
Which then touches your eyes.
How it transforms,
All monotony is gone!
And its not long
Before we give way to mirth
Which then gives birth.
To a harmony that holds
Though by this small bond, so close!
And our pleasure seals
With unspoken zeal,
The promise of concord,
Melody off all records;
And silent music stirs
Binds for ever this cord
Between your and my heart,
By something of no size—
Just the shadow of your smile!

Quotes

Abid Nisar

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

* Ask not what your country can do for you. Ask what you can do for your country. **(JOHN KENNEDY)**
* Our characters are the result of our conduct. **(ARISTOTLE)**
* Be civil to all, sociable to many, familiar with few, friend to one, enemy to none. **(BENJAMIN FRANKLIN)**
* When you get into a light place and everything goes against you, till it seems that you can not hold on a minute longer, never give up then, for that is just the place and time that the tide will turn. **(HARRIOT BEECHER STOWE)**
* Remember the day when you were born. All were laughing when you were crying. Lead such a life that when you die, others should weep while you go laughing. **(SHEIKH SAADI)**
* Tanks and guns are not sufficient, it is the man in the tank and behind that matters. **(GENERAL MONTGOMERY)**

Defence Forces of the Host

Khalid Saleem Aslam

B.Sc. III Yr. M.B.B.S.

Infectious disease is the result of a struggle between a parasite and its host. The struggle implies that the parasite has not successfully adapted itself to the host species and that the host has certain defensive mechanisms at its disposal against the parasite. The term 'parasite' is used here to indicate all pathogenic bacteria, protozoa, viruses, rickettsia etc., which live at the expense of the host.

To produce a disease the parasite should essentially overcome all the defensive mechanisms at the disposal of the host. These mechanisms have been grouped into the three parts, and each one of them is called A LINE OF DEFENCE. Just as the various lines of defence built by an army to defend its country against any foreign invader.

Each of the three lines of defence are dealt here in detail to show the mechanism involved and the extent to which the lines of defence are effective.

FIRST LINE OF DEFENCE

Conventionally, it includes all the mechanical barriers offered by the host. These are the intact skin, mucous membranes, hairs, etc., some chemicals secreted by the body in the various organs are also included in this line, although these chemicals are not basically meant for the defence against parasites e.g. HCL.

SKIN: The intact skin especially in the adults is the first barrier to the entrance of the foreign agents. It is aided at times by the oily natural secretions. These exert bacteriostatic (Inhibiting the growth of the bacteria) and bacteriocidal (Killing the bacteria) activity e.g. secretion of the sebaceons glands which contain fatty acids, acidity in perspirations is quite toxic to the microbes etc.

HAIRS AND MUCOUS MEMBRANES

The hairs in ear, nose and eye-lashes and the mucous membranes of the nose, throat, vagina etc., act as barriers to the entrance of microbes. Conjunctiva serves a similar purpose in the eyes.

Certain reflexes also help in the defence of the body. Microbes gets attached to the mucous membranes due to latters moistened surfaces and then they cause irritation of the membranes, which in turn results in their expulsion e.g.

1. Sneezing: It expels the microbes and other foreign particles from the nose.
2. Coughing: Expels the bacteria from the bronchi.
3. Vomiting: It does the same from the stomach.
4. Diarrhoea: does it from the intestine.
5. Tears: From the eyes.
6. Saliva: From the mouth and throat.

SECRETIONS: The presence of highly acidic or alkaline pH is also harmful for the bacteria and hence the gastric juice (Highly acidic) and the various intestinal juices (Highly alkaline) serve this purpose well. However acidic or low pH is harmful, so gastric juice has a bigger role to play in this respect than the intestinal juices, as the alkaline or high pH is better withstood by the micro-organisms. Bile juice, however, has a different mode of action. Bile salts present in it, lower the surface tension considerably and thus exhibit bacteriostatic activity.

The adult urino-genital tract is protected against infection by its mucous membrane and the flow of urine, which is usually acidic.

Lysozyme, a bacteriocidal enzyme is present in some normal secretions of the body e.g. saliva, nasal and lacrimal fluids, etc.

The ciliated epithelimn of bronchi prevents particles bigger than 4 Microns from reaching the alveoli and traps them. On getting trapped they cause irritation and are then coughed out.

Lactrin present in cows milk is highly bacteriocidal.

SECOND LINE OF DEFENCE

Once a contaminant has successfully evaded the first line of defence i.e. the physical barriers either by the help of its own offensive and invasive powers or by taking advantage of any leaks in the first line of defence, it encounters the second line of defence called PHAGOCYTOSIS.

Metchnikoff, was the first to study the phenomenon of phagocytosis. He suggested that in the complex organisations of biological origin, some cells exist which are capable of ingesting (Phagocytosing) the particulate matter. He termed these cells as PHAGOCYTES and the process as PHAGACYTOSIS.

Phagocytosis is a Greek work and literally means "the eating of the cells".

Phagocytes not only eat up the parasites and foreign particles but also the worn out cells of the body. They are present in the blood and other parts of the body.

Phagocytes are of two main type:

1. *Phagocytes of the blood*: They are the cells belonging to leucocyte series and are also called as Microphages. They are highly differentiated granular or agranular leucocytes present in the blood and are produced in the bone marrow. The most important among them are the polymorphonuclear cells (neutrophils) and the monocytes. Monocytes are only concerned with the removal of worn out body cells and are therefore also known as Scavenger cells.

The neutrophils have the capacity of independent motion in an amoeboid fashion. This enables them to move from any part of the body to that part where any foreign cell dead or alive is present. The neutrophils are very active phagocytes.

2. *Phagocytes of the tissues*: Asckoff has given the modern concept about them. They all belong to the Reticulo-Endothelial System and are also called as Macrophages.

These are cells, originating from the mesenchyme of the lymphnodes, sinuses in the liver, spleen, bone-marrow and capillaries.

Tissue Phagocytes are classified as follows:

RETICULO-ENDOTHELIAL SYSTEM

Sessile Histiocytes		Wandering Histiocytes.	
Very Active Present in	Less Active Present in	Tissue Histiocytes.	Blood Histiocytes.
1. Endothelium.	1. Spleen.		
2. Liver.	2. Lymphatic glands.		
3. Adrenal glands.	3. Thymus. etc.		

Sessile histiocytes are not important for defence as they are concerned with the destruction of erythrocytes. But the wandering histiocytes are important for the defense of the body against parasites.

MECHANISM OF PHAGOCYTOSIS

The wandering phagocytes makes contact with the micro-organisims by collision but they are also capable of moving towards them by amoeboid movement. Living and dead parasites attract the phagocyte towards themselves. This is attributed to some chemical compound in their cell wall, and the process is termed as CHEMOTAXIS OR CHEMOTROPISM.

For phagocytosis, it is necessary that the phagocyte should entrap the parasite against solid surface or between two phagocytes.

Process of phagocytosis is divided into following phases:

1. *FIRST PHASE*: This is called the mobilisation phase. Here the phagocytes especially the leucocytes are mobilised i.e. they are sent to the infected region from all over the body. This phase is influenced by following factors:
   i. Adequacy of blood flow through the affected part.
   ii. Adhesion of leucocytes to the walls of capillaries preparatory to passing into the tissues. It is enhanced by a dialyzable polypeptide called leukotaxine.
   iii. Passing of leucocytes through capillary walls.
   iv. Attraction of leucocytes by the micro-organisms (Positive Chemotaxis).

2. *SECOND PHASE*: Here the phagocytes first trap the parasites against a solid surface (Wall of capillary, tissue cells, another phagocytes etc), and then engulf the parasite. The phase is greatly influenced by the opsonin antibodies.

3. *THIRD PHASE*: In this phase the ingested micro-organisms are digested.

The outcome of phagocytosis is not alway beneficial for the body because a number of phagocytes are destroyed during the process. Some bacteria instead of getting digested after ingestion, destroy the phagocyte. Staphylococci are even capable of multiplying within the phagocyte.

Resistance to Phagocytosis

If the parasite shows negative chemotaxis then the phagocytes arehelpless against them. This is due to the presence of certain chemical compounds in the bacterial cells e.g. Pneumococci have a polysaccharide capsule around them, which causes negative chemotaxis. It is also soluble in the surrounding medium, so it is continuously shed off. To overcome this difficulty body produces certain specific antibodies called opsonins, which attach themselves to the organisms

and make them susceptible to phagocytosis, but these antibodies also fail in the case of Pneumococci. The polysaccharide of the capsule of the Pneumococci go into the surrounding medium and there it combines with opsonins and make them inactive.

Staphylococci, Streptococci, Pnemococci etc., produce a substance, leukocidin which kills the leucocytes and thus help the bacteria in their struggle against phagocytosis.

THIRD LINE OF DEFENCE

When the parasites have defeated the phagocytes then they face the third line of defence. It is entirely chemical in nature. The substances produced by the body to fight off the parasites and the toxins produced by them are called ANTIBODIES.

When the first stimulus is received then the lymphocytes produce antibodies which are 19S type, production.

The lymphocytes now change into plasma cells. These on receiving second stimulus produce antibodies, 7S of type.

Plasma cells are the main antibody producers.

Antibodies of 7S type are more effective and more selective against their antigens as compared with the 19S type antibodies. (Antigen is any substance which can stimulate antibody production).

All antibodies are gamma globulins chemically. Following are the various antibodies produced by the body against different antigens:

1. Agglutinins: They are the antibodies against particulate matter causing their clumping.
2. Precipitins: These are antibodies against soluble antigens and they cause their precipitation after combining with them.
3. Complement fixing: Are the antibodies which require complement for reacting with antigens.
4. Antitoxins: Make the toxins harmless.
5. Lysins: Dissolve the cell wall of the parasites.
6. Neutralizing: Neutralise the infectivity of the parasites.
7. Opsonins: Antibodies making parasites susceptible to phagocytosis.

In this line of defence are also included antibodies which have been produced by previous contact of the host with the same parasites. It is called as **individual innate immunity**. It is most commonly seen in cases of Small-pox. When one has once suffered from this disease then the antibodies produced against that particular virus remains in his or her blood for the rest of his or her

life or the antibody pattern is preserved in the 'memory Cells' of leucocyte series, which upon receiving slightest stimulation start producing antibodies and thus enable the host in his fight against the virus. Thus usually a person who has once contacted Small pox will not suffer from it again.

RACIAL INNATE IMMUNITY:

It is the resistance offered by one race to a particular disease as compared with other races. Examples are that the Africans are more resistant to yellow fever and skin diseases as compared with the Europeans and Americans. Reverse is true for pneumonia and tuberculosis.

The explanation is that when people of one area are continually exposed to a certain disease, they then develop a very high resistance to that disease. This resistance is inherited by the off springs. Resistance is due to the antibodies present in the blood.

Some recent workers have changed the above classification. They do not now consider the first line of defense at all but go right to the second (Phagocytosis) and third (Antibodies) lines.

They also claim that as Phagocytosis is also dependent on antibodies (Opsonins) hence the antibodies should be considered as the first line of defense. Phagocytosis then occurs and is followed by the full antibody response. Again then phagocytes are the ones who remove the dead parasites hence the division of the defense forces into three lines is arbitrary and cannot be strictly adhered to.

There is one more type of resistance offered by the host which cannot be classified under any of the above heads. It is:

SPECIES INNATE IMMUNITY:

It is the resistance to various diseases offered by one species and not by others. e.g. some parasites such as *Vibrio Cholerae* and *Neissaria Meningitidis* are although pathogenic to man have no effect whatsoever on the animals. Hens are not susceptible to Bacillus anthracis but man & sheep are.

These resistant species show a localized reaction and no systemic effect. This localised reaction is only seen when a very large dose of the parasite is given through an unnatural route.

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Role of Medical Men in the Detection of Crimes and Awarding Punishment

Zaheeruddin Ahmed

IV Year M.B.,B.S.

We are really lucky to live among good people where the moral, traditional and religious ties are strong enough to prevent crimes. In European countries and in the Unites States of America the crime ratio is much more than that of Pakistan. Still this low crime ratio in Pakistan is enough to attract the attention of law-governing authorities. The statistics of crimes occurring in the year 1969 and in 1970 alone are as follows in the city of Karachi, where the population is about 40 lakh (According to 1950 census) and which shows the maximum percentage of educated persons in whole of Pakistan.

FROM CRIMES REPORT GOVERNMENT OF PAKISTAN

	NATURE OF CRIMES	1969	1970
1.	No of civil & criminal cases in Karachi courts (Ex. M.L. Courts)	11,597	11,722
2.	MURDER	146	131
3.	ROBBERY	10	2
4.	PICK-POCKETING	381	363
5.	CASES OF THEFT	1277	1208
6.	STREET LOOTING	50	60
7.	CASE OF THEFT REPORTED AGAINST HOUSE SERVANTS	201	167
8.	RAPE & KIDNAPPING	216	194
9.	TOTAL NUMBER OF ARRESTED PERSONS UNDER CIVIL AND CRIMINAL CASES	2217	2304

MURDER RATIO IN KARACHI
One murder after every 60 hours

In U.K. and U.S.A. the crimes ratio is much more than that of ours, yet we can not allow the offenders to wander freely in our society. Whenever a crime is brought to the notice of police, the General public understands that it is the entire responsibility of the police to detect the offenders and such thinking

naturally leads to the conclusion that only police is responsible to detect and prevent crimes. They barely afford to think that medical men also help a lot the guardians of law (the police)—in giving important clues about the crime and the offender. Now-a-days Doctors are increasingly being drawns into litigation. The development of State medicine has made the public conscious of its rights and of the advantage to be gained by using the services of the well informed doctors and the lawyers in civil or criminal proceeding. In present time no doctor can afford to remain ignorant of his medico-legal obligations, if he is to give efficient service to the public, police or to the court. Changes in the law and advances in medicine and science also offers a challenge to the efficiency of a doctor, that can not be ignored. More over a doctor who

Medicolegal Cases Registered in
CIVIL HOSPITAL
KARACHI
(1965-1970)

YEAR	NUMBER OF MEDICO LEAGAL CASES
1965	10,273
1966	9,426
1967	9,346
1968	10,563
1969	10,421
1970	10,426

signs a medicolegal report or stands in the witness box must know what he is testifying and should well be prepared for the cross examination on his views.

MEDICAL EVIDENCE are of 2 forms.

1) Oral (a) Direct or Eye witness.
(b) INDIRECT or Circumstantial.

2) Documentary: These evidences may be
(a) medical certificates of ill health.
(b) medical certificate of insanity and death.
(c) Medico legal reports: Injury report, Postmortem report, Report of age, Rape, Abortion, Poisioning and Dying declaration.

All the above mentioned evidences play a vital role in detecting crimes. Criminals often put forward the pleas of sickness in the court at the time occurrance of the crime. There is always a motive for FEIGNING insanity. A criminal pretends insanity to escape punishment. In England & Wales during 1962 only 41 people were found legally insane upon arraignment and only 9 were found

legally insane after trial. The medical officer may be summoned to give his opinion whether such a person is really insane or not. The medical officer may keep such person under observation for not more than 10 days in the first instance and can extend the period for 30 days with the permission of the magistrate concerned. The place of observation should be jail or a mental hospital.

INJURY REPORT: Such a report may be required either under civil law or under criminal law.

CIVIL LAW: For the preservation of civil rights of individuals or of companies in compensation for damages, in control of business, trade, etc.

CRIMINAL LAW: For the Punishment of Public offences and mischiefs, offences against the persons etc.

Apart from "ASSAULT" as from throwing of a brick at a man and "BATTERY" which would apply only if the brick hit the man, the law has set out certain classes of wounding and in the event of death within a year and a day caused or accelerated by wounding, several types of homicide.

But the law does not particularly define wound, but the words of statute related to these subjects are, whoever causes bodily pain, disease or infirmity to any person is said to cause hurt.

The punishment in case of homicidal or attempted homicidal offence depends on the basis of the injury report:

POSTMORTEM REPORT: A postmortem examination is a must in all cases where "FOUL" play is suspected or when a dead body is found in Railway Carriage or in a hotel or when a prisioner dies in jail. The postmortem report helps the police in the detection of crime on one hand in awarding a proper punishment, on the other hand to court.

AGE REPORT: The importance is for the following reasons.

1) Rape..... 15 and 16 years.
2) Kidnapping ..... 18 years.
3) Whipping..... between 7 & 45 years.

SEXUAL OFFENCES: Two principal types of sexual offences come to the notice of doctors. In the first type, crime is the manifestation of mental disorder. This include repeated indecent exposure, indecent assaults upon children and "SADISM or MASOCHISM". This group may be important to PSYCHIATRIST but not to a doctor, only his duty is to emphasise to the court the disordered state of mind, if he is asked to do so.

The second group of sexual offences is the deliberate sexual crimes, by person in a sane though perhaps morally degraded frame of mind. This includes indecent assaults on female, frank rape, incest, buggery and comparatively rare bestiality (sexual intercourse with animals).

After the Second World War there is a constant, but tremendous increase in sexual crimes in U.K. for example in 1938 only 5500 sexual offences were reported to U.K. Home department. The figures reached to 20,000 in the year 1960. In Civil Hospital Karachi, the Casualty department received the following medicolegal cases; The statistics clearly show an increasing tendency towards the sexual crimes in our society. The reason, whatsoever it may be, however, constitutes a serious problem for the doctors, who are asked by the court of law to examine the victims or offenders.

YEAR	TOTAL ML: CASES	ASSAULT	RAPE	SODOMY
1965	10273	5740	48	44
1966	9426	5124	40	35
1967	9346	5120	36	30
1968	10563	5760	90	75
1969	10421	5672	99	76
1970	10426	6450	150	120

The medical officer should be very cautious in taking a decision regarding a case of rape, because the section 375 & 376 of Pakistan Penal code states "The slightest degree of Penetration of vulva by the penis may constitute rape, and hence there may not be any positive evidence and the examining doctor may say that he did not get any sign of rape rather than no rape. Further more, secondary factors may complicate the issue such as, age, sterility, impotency and virginity.

If the examining medical officer is not cautious and not well acquainted ith sexual medicolegal cases, he may put innocent people in trouble and there always a chance that the law may award punishment to a gentleman who had performed any criminal act but to whom a notorious lady wants to defame, race or blackmail in order to get some personel advantage or monetary fit.

PUNISHMENTS

With the exception of Bernard Shaw most of the advocates of Penal from John Howards onwards have declined to see that the evils of ment are inextricable from imprisonment itself. On the contrary they

have assumed that prison is an indipensable institution and potentially a good and useful one.

At one time courts had a virtually unrestricted licence to deal with law breakers as they pleased, but during the last century legislators throughout the greater part of the civilised world grew increasingly ashamed of the savagery and violence that characterised the administration of justice and they tried to give punishment a new rationale. This was the rationale of Deterrence, the concept of punishment to fit the crime. Maximum and minimum penalties for every offence were fixed but statute to accord with supposed deterrent needs. The law is relaxable in case of ill health or due to poor physique. For example at the time of whipping of a prisoner a doctor's presence is a must to ascertain whether the person can bear the punishment as much required by the law, if not doctor has every right to reduce the punishment or to completely exclude him. Whipping can cause death under following conditions:

1) Old age.
2) On bare and vital parts.
3) When the stripes are in repeated number and in quick succession.

Further more a doctor can change a rigorous imprisonment into simple imprisonment, he may also ask the superintendent of jail to exclude a prisoner from the punishment of cell; the solitary confinement due to mental conditions of the prisoner.

It is definitely established that the doctors are a must in keeping law and order in the state.

Critic: A person who understands and interprets what the author did'nt know he was writing.

Disk Jockey: A guy who gives you the needle.

News Cast: The same things happening today that happened yesterday—only to different people.

Laughing Stock

Azam Baig

III Year M.B.,B.S.

A crowd had gathered around an old man, who had collapsed on the street, and people were making various suggestions. One said "stand back, give him some air", another said "take him to the hospital", while yet another suggested calling a doctor. An old lady suggested "Give him some brandy", where upon the Old man sat up and said "why don't you listen to the old lady?"

* * *

"Do you serve crabs here?"
"We'll serve anybody Sir".

* * *

"Do you have eczema?" the doctor asked the waitress as she kept and scratching her nose.
"No special orders, Just what's on the menu", the waitress replied.

* * *

A guy went to see a doctor. His complaint was a boil on the neck.
"It is being caused by a bad tooth", the doctor assured him.
"Oh!" said the suprised patient and taking out both dentine plates, he laid them infront of the doctor on the table and said,
"You point out which tooth it is doc, and I'll knock it off right away".

* * *

Dentist "Open wide Wider.....Wider".
Patient—Doc. are you going to look in, or walk in?

* * *

Two very bored long term hospital patients swiped the diagnosis cards from the nurses duty room, for a quick game. It was draw poker. There was a lot of money bet on one particular hand, and all the loot ended up on the table.
"Sorry, I guess I win, "Offered one patient, "I have gall stones and three tonsillectomies".
"Not so fast" said the other player, "I've got four enemas. I win the pot".

* * *

Enroute from London Airport to give a lecture in Belfast, Sir Alexander Fleming discoverer of Peniclilin, was told that all the seats on his plane had been taken by Ministerial passengers of the 'Highest Priority". It turned out that the passengers were all officials of the Health University who had been sent out to hear his lecture.

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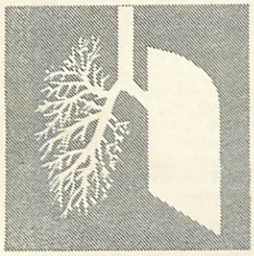

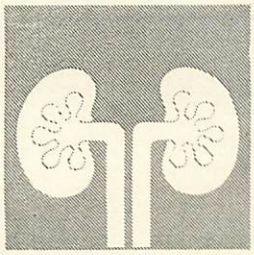

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The Alternatives

M. Shahid Yousuf

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

When one looks at the stars, one is looking at events that happened several million years ago. This ability of looking at the events of distant past has given the astronomers and physicists a great wealth of information regarding the laws of physics and related disciplines of science. In fields related to sociology, human behaviour and culture the social scientists are even in a better position. By the help of recorded history, they can know of the state of human development at least a few thousand years ago. Progress in biology has enabled the scientists to see even more distant state of human evolution.

Since all human communities do not, for various economic, cultual and political reasons, progress at the same rate, it is possible to predict, with a fair degree of accuracy, changes that are likely to occur in a given nation or community as that nation or community passes through the various phases of progress and development. For relatively underdeveloped countries, the social and cultural changes can be surmised by studying the conditions current in the more advanced regions of the world. One of the most interesting aspects of human behaviour that can be studied is the different roles that women have had to play in different lands at different times and how economic and scientific changes have altered or even reversed these roles. The object of this essay is to examine the role of the Western world women in the present day and to draw conclusions from it so that it may enable a rational consideration of the possible alternatives that the Pakistani women have in determining their future role.

The traditional role of women has, it seems, been predominantly been governed by the biology of being female. By this I mean that there were always certain physical, hormonal and utilitarian aspects that governed the division of labour. This process can even now be seen in the animal kingdom, especially amongst the higher orders of living things. Social Anthropologist Lionel Tiger has recently written extensively about the intrinsic biological attributes that males and females inherit right from the moment of conception and how this behaviour is modified and strengthened by hormones. He has explained how over the years this genetic inheritence has laid down the blueprint of male and female roles. The division of labour thus ordained has served the human species well both in terms of efficiency and in the very survival of the species as a whole. Natural selection has over thousands of years added refinements and rigidity to this pattern of maleness and femaleness. With these facts it has always been easy to explain several notable features of all human cultures. For example, it explains why

it has always been the responsibility of males to go out to hunt and to fight wars for the preservation of the group. The evidence that is presented by Lionel Tiger is vast and convincing. It is not possible in this short essay to present even a part of the evidence without doing injustice.

Some workers have disagreed with Lionel Tiger and have their own explanations to account for the remarkable difference in the roles of human males and females. One such worker Diana Trilling states that culture has been the most important factor in determining the difference in the roles of men and women. "It is perhaps only because our culture prefers that its women find their best satisfaction in the activities of home and family that the women themselves obediently discover it there." "In other words, we are all of us, men and women both, the creatures of culture; we do and feel what our societies want us to do and feel—and the demands that our society puts upon us are not always either very consistent or very precisely correlated to biology."—(2). The worker after explaining the role of culture is however puzzled about the fact that the contribution of females to learning and culture is infinitesimal. "As to the relative roles of men and women in culture, surely it is indisputable, at least historically, that for better or for worse men have forged the ideas and provided the chief engines by which cultures develop, while women have devoted to the conservation of what they have found valuable in the efforts of men. We may protest that there is no work in culture that is as valuable as woman's childbearing and child nurturing activity; that the ability to create and conserve the human race overshadows any other conceivable accomplishment in culture. But this, while itself a valid claim, begs the question of why women have not made even a small fraction of the intellectual, scientific or artistic cultural contributions which men have made."—(2).

Another writer Morton M. Hunt has described the primitive role of women rather aptly. "Woman was a most useful creature—good for carrying water, building fire, preparing the food, making clothing, concocting herbal infusions and poultices, rearing the children, and at night though bone weary from her labours, still available for comfort of her mate and the relief of his natural tensions."—(3). While admitting the biological component, the writer asserts that customs and manners have played the major part in determining the feminine role. "What all this indicates is that the larger share of those traits that are taken by men of any era to be timeless components of feminity are, actually, only passing customs and manners. There are some essential aspects of feminity; there are, also, a great many non-essential or modifiable ones. To put it another way, feminity in any era is a whole cluster or set of roles which a woman plays towards the people around her, but some of these roles are biological roles, and hence not changeable, while others are social roles, and hence subject to great variations."—(3). The writer however elaborates what he believes will not undergo any change. "Biologically, woman will always be man's lover (except

in self extinguishing societies), and will have to be atleast cooperative and accepting enough, despite enthusiasm and activity, to permit him to function in the essential and irreducible sense. Biologically, she will also harbour his seed, shelter the fetus, and bring forth the child unless the nightmarish visions of babies in bottles in Aldoux Huxley's "Brave New World" ever comes true. She is in most instances going to be smaller, weaker, softer than man, and to that extent she may therefore always make a better caretaker of small children."—3.

The roles that women of the world are being asked to play are by and large still what may be called as the traditional roles. The essential role of taking care of children and of maintaining and running efficiently the home is still unchanged. The last world war created a significant shortage of "manpower" in the developed nations and this necessitated a reorientation of the functions that women were pursuing. Education and a trend towards mechanisation enabled women to take up such tasks as were previously considered to be exclusively masculine. These pioneering women ventured out into almost all the traditional jobs of men. Doctors, lawyers, engineers and even politicians could be seen amongst the ranks of these new breed of females. The Western nations held to be most progressive were U.S.A., Germany, U.S.S.R. and Britain. In these lands sweeping changes took effect that changed the very concept of the division of labour. To critically examine the progress, that women of the free world, have achieved it is useful to take U.S.A. as the example of the nation where women have achieved the greatest amount of "emancipation" and "liberation".

Compared to any other country in the world, women of U.S.A. are enjoying the greatest amount of freedom which they can exercise in deciding what career they wish to pursue. They have equal rights as men in being educated in whichever field they wish to specialise. Politically they enjoy the privilages which men of that country have. Economically too they own a considerable amount of resources. To put it another way, by and large, the women of U.S.A. are independent and are offered the same opportunities as men.

If the assumptions in the last paragraph are taken to be the truth then, to see the actual state of affairs, we must examine the statistics available to us regarding the situation. Even a brief examination of the established facts points out to an unmistakable conclusion that women of U.S.A., despite the freedom they enjoy, have chosen to stay within the broad confines of the traditional roles which have for centuries been followed by women elsewhere in the world. For example, the percentage of women who received Ph. Ds. in 1920 in U. S. A. was higher than it is today. This is surprising as one would have expected the figure to be several times higher after 71 years of increased opportunity that women have enjoyed. Again, in U.S.A. only 1% of the engineers are women and there is one woman senator. Seventy percent of all women who are in the professions or technical occupations are either teachers or nurses. Only one woman

in eight is the sole support for the family. In politics the tide seems to be turning as during the last ten years women have lost 50 seats in state legislatures. The women who actually enter a career fare very poor. For example, in 1969, of the Americans who earned more than $ 10,000 per year only 2% were women. On an average a woman college graduate earns only half as much as a male college graduate.

The professions seem to be specially devoid of women. In U.S.A., for all professions there are only 9% women. There are only 3% lawyers and 7% of all doctors. The percentage of women among the physicians, for example, in U.S.A. in 1971 is the same as it was in 1910. Although women earned one out of six doctorates in the learned fields in 1920, they now earn only one in ten today. Even Britain has a similar story to tell. In a survey carried out amongst 1496 young British medical graduates by J.M. Last and Eda Brodie, the following observation was made :—"There is a further loss of medical skills through the unemployment of married women doctors. In this sample 331 respondents were women, 233 of whom were married. Of these 51 were unemployed medically and 108 were working part time, some only for one or two sessions weekly. If the average commitment of part time workers is reckoned, perhaps rather generously, at half that of full-time workers, a further 54 married doctors will be unemployed; thus the total loss of medical skills in this survey was 105 women (that is 7.8% of all in the sample or 31.7% of all women doctors)."—4.

At this stage it is worth while to review the data. There is little doubt that during the last fifty years or so the changes are not as striking as one would have expected in the fields of the employment of women of U. S. A. and other Western countries. Attempts have been made to explain this phenomenon. One explanation that has been forwarded is that eventually every or nearly every woman prefers marriage to a full time career. By the time the children have grown up, it becomes very difficult for a woman to resume her previous job. Another explanation is, popularly labelled as "motive to avoid success", often offered to account for the situation. Recent surveys have shown that about 66% to 85% of U.S. women fear that academic excellence will threaten a woman's popularity or chances of getting a man. Almost always, the husband's job is more paying so that in case of a transfer or changing to a better employment usually calls for the wife to abandon her job. This results in grave dislocation in the career prospects of the women, though the family as a whole usually benefits from this. Other explanations are that no matter where the women are employed, the earning is usually less for women than it is for men. This applies even in the case of selfemployed independent professions. For example, in U.S. A. compared to female lawyers of 10 years experience, male lawyers with the same experience earn 200% or more. This renders careers to have much less fascination for women and most women after years of hard struggle

usually settle down to a much more appealing and accepted role of being a wife and mother. Anthropologists have noted that no matter what the men do, what they do carries prestige. This is true for all human societies both primitive and modern. Margaret Mead explains the situation: "Whatever happens to be the occupation of men has greater prestige. If the men do the hunting and fighting, hunting and fighting are the status giving occupations; if the men do the weaving and baby tending, then weaving and baby tending are the superior activities of that society. We may think of this as something which men *impose* on women. But then we are forced to explain why is it that even where women bear arms they have not imposed a different system of values". Perhaps it is this lack of status that deters educated and qualified women from continuing the career that they had prepared themsleves for.

The contradiction of expected and actually adopted roles of the American women has created a great deal of confusion. On one hand she is brought up to believe from the very childhood that she is as good, if not better, than her brother and on the other she finds that in her adult life the only useful role that she can perform without much difficulty is that of housewife. Career women and housewives both are in great uncertainty and bewilderment. The predicament is summed by Morton M. Hunt as follows: "American woman has greater advantages, opportunities and freedom than any woman in the past (except for a few queens, ladies and such), yet seems to be more troubled, conscious of her probblems, and perplexed as to her identity than women were in the past. Women in many other lands envy her and think her lucky; American woman herself however, worries about the fact that she isn't as happy as she ought to be, and wonders if it could mean there is something fundamentally wrong with her whole way of life."

The confusion as to the true role of American women has taken a heavy toll. The psychologists and psychiatrists both are noting with concern the developments. Dr. Phyliss Chesler Ph.D., in the course of her clinical observations and research has come to the following conclusions:

1. For a number of reasons, women "go crazy" more often than men and this craziness is more likely to be self destructive than other destructive. According to N.I.M.H. statics for 1964-1968, 125,351 more women were psychiatrically hospitalised and/or treated on an outpatient basis. The figure from 1950 through 1968 also showed an increased number.

2. Most female "neuroses" are a result of societal demands and discrimination rather than the supposed mental illnesses of the individual.

In 1969, DL. Philips and B.E. Segal reported that when the number of physical and mental health ilnesses were held constant for women and men,

women were more likely to seek medical and psychiatric care. Even amongst non-hospitalised adults, who are supposedly normal, women are more "psychologically distressed" than men. In 1960 studies by Gerald Gurin and his colleagues survey for the Joint Commission for Mental Health and Illness. Taking a randon survey they found that:—

1. Women reported greater stress and physical symptoms than men in all adjustment areas, in their self perceptions, and in their marital and parental functioning.

2. Divorced and separated women reported feeling of imminent breakdown more frequently than did any other group of either sex.

3. The unmarried had greater potential for psychological distress than the married.

4. Women reported more than men, more fear of breakdown and need for help.

A study by U.S. Department of Health, Education and Welfare in 1970 published a survey of American adults both black and white, summed up the situation as follows: "The fact is, most women are unhappy because they have been trained to be passive and dependent in a world that values activity and strength." A similar sentiment is expressed by Phyliss Chesler though worded differently: "Marriage is one of the two most socially approved institutions for white middle class American woman. The other is psychotherapy. "The unhappiness of American woman manifests itself in many forms. Several organisations have sprung up with a wide range of objectives. For example there is an organisation called S.C.U.M. (for Society for Cutting Up Men). Then there is W.I.T.C.H. (for Women's International Terrorist Conspiracy from Hell) and others F.E.W. (for Federally Employed Women), B.I.T.C.H. (for nothing), N.O.W. (for National Organisation for Women). Some of these movements have degenerated to absurdity as for example a movement to reform English language because it is too male oriented and it is Manglish and not English. The cure for the situation is a new English dictionary which with perfect seriousness advocates substitution of "boycott" with "girlcott", "history" with "herstory"—5. Others are busy demolishing established institutions. Ti-Grace Atkinson once a top ranking worker of N.O.W. describes marriage as slavery and legalised rape. Another is working desperately to tear down the family system though what will replace this system, she is uncertain.

The feelings of poet Phyliss McGinley are put in this way:
Snugly upon the equal heights
Enthroned at last where she belongs,

She takes no pleasure in her Rights
Who so enjoyed her Wrongs.

Morton M. Hunt puts the whole issue as such "The basic question is whether all these alleged ills merely the pains of transition, or whether they signify that the direction of feminine evolution today is fundamentally unhealthy, contravening to the Laws of Nature and running counter to the timeless needs of male and female alike."

The survey of the American scene in the previous paragraphs was necessary because it provides a ready and detailed description of the new roles of women. I have deliberately used American statistics for two reasons. Firstly, American statistics are readily available and secondly because many of the surveys are totally independent, objective and unbiased. The role of the women, in totally state controlled economies and in those countries where democratic traditions are not followed, has not been used to formulate opinion for obvious reasons. The author regrets that he has been unable to secure more information on the subject regarding Scandinavian countries where the changes have been profound. The statement of the Prime Minister of Sweden, Olof Palme gives us an idea "Its human beings we shall emancipate. In Sweden today, if a politician should declare that the woman should ought to have a different role from man's, he would be regarded as something fron Stone Age. "(It may be mentioned, in passing, that in Sweden, the suicide rate is higher for women than for men, but the actual number that succeed is greater for men than for women.)"

Having obtained a little view of the troubled situation of the Western women, let us consider the situation in our own country. Even though our country is just under a quarter of a century old, it has given women the rights and privilages that women of the West had to fight for. For example our women have had the right to vote and equal pay for equal work principle accepted from the very time of creation of Pakistan. The women of Pakistan had never to struggle for the two, and so the position has been achieved without any bitterness. The women in Pakistan have some special privilages that are not enjoyed by men. For example, the women can contest for a larger number of seats in the National Assembly than the men. They can contest for the general seats and in addition contest for the specially reserved seats for women. During the last Presidential elections, Miss Fatima Jinnah, Madar-e-Millat, contested for the office of the Chief Executive. Women belonging to the comparatively richer families have ventured into the professional lines like their sisters in U.S.A. and other Western Countries. Their enthusiasm in this respect is perhaps several times greater than their counterparts in the West. We have women doctors, engineers, lawyers and some independent women in the business. The number of doctors turned out in 1970 by Dow Medical College was 96 of which 32 were lady doctors, i.e. an amazing figure of 33%. In the engineering field the figures are not spectacular, perhaps that role of women has yet to gain social acceptance. In the University of Karachi

54% of the students are girls. National newspapers and magazines have all started employing women journalists. Radio, television and the advertising communities are the new groups where women have ventured and made some contribution.

It is impossible to get a true idea of the real changes that the women have brought as regards their employment. In Pakistan, there is a great scarcity of facts and figures. Even the Government publications hardly make any comment either on the economic or the employment status of women of our country. For example, we know that in Pakistan, women have entered the medical profession. But, beyond that nothing is known to the general public. We do not know what is the percentage of women who after qualifying are still practicing medicine full time or that how long on an average is the practicing period for lady doctors as compared to men. It is not known in any detail of the median wage of employed women as compared with that of men. This situation leads the casual reader of the publications to draw false conclusions. For example it is well known that hundreds of women in our country acquire degrees both B.Sc. and M.Sc. in such varied scientific fields as Biochemistry, Pharmacy, Microbiology, Mathematics and Medical technologies. In many of these fields the number of girls is higher than the boys. On the surface one might assume that because the number of girls, say in Marine Biology class is 60%, then roughly 60% of the future marine biologists of the country would be women. This view is further strengthened by magazines, especially womens magazines, that run interviews and articles and harp out the old emancipation theme. But, in the absence of any statistics, it is in short impossible to evaluate and critically examine the womens' employment position and as such even more difficult to chalk out any development programmes in either education or employment situation of the whole country.

The scarcity of reliable statistics has lead to grave errors in planning both on the national and family level. These errors specially affected the educated class more than any other. As, conditions have shown, the job availability for men is bad enough and for educated women is far worse. The situation was made critical by the news media of our country which has shown since 1958 a great dislike for objectivity. Every step by the authorities is invariably praised, every new policy welcomed and every budgetary allocation greeted; one often begins to wonder that if the new step is so good, then how come the old state of affairs was never criticised. Even now, the exact state of the educated woman is not fully portrayed. The result is that great deal of trouble and considerable expense goes waste when women after qualifying find that there are no jobs waiting for them. They must then either sit at home or take up almost anything from interior decoration to a foreign language course. If even now, steps are taken to put the matter right, the situation can be corrected and we can spare the educated young women the agony of long and protracted studies and the frustration of having nothing to do after acquiring the degrees. One is reminded of the famous limerick:

A damsel at Vassar named Breeze

Weighed down with B. Lit.'s and D.D.'s.
Collapsed from the strain.
Said her doctor, "It's plain.
You are killing yourself-by degrees."

The alternative to a satisfactory career is an early marriage. The surprising part of the situation is that for marriage, sometimes a job, any job, is deemed necessary. The post studies phase of a young woman's life is bewildering. The role of our young women at this crucial juncture of their lives instead of being fruitful and constructive is reduced to the "marital rat race". A good account of the lives of most of our educated young women is given by Farzana H. Ali: "You may well ask what being a member of the marital rat race entails. First and foremost, one is expected to put an appearance at every 'social event' of any magnitude. This conveniently wide phrase embraces a diverse variety of occasions, engagements, marriages, circumcision celebrations (the fact that you don't know the people concerned is of little consequence), art exhibitions, movies (preferably on the opening day), flower shows (to project your flower-like, flower-loving image), diplomatic receptions (if you are lucky enough to be invited to one), diplomatic receptions (so what if you are not invited. . . . just grit your teeth, look important and gatecrash your way through), cricket matches, classical music soirees (if you possibly can endure the tedium of an entire evening spent in the company of Mozart), play readings, poetry readings (so what if you can't tell the difference between Ogden Nash and John Keats—at least it helps in establishing you as an intellectual) and Saturday night parties." "Identifying yourself with a certain product on television (you will be known as "Black and White" girl forever) or appearing in the fashion layout of a women's magazine also helps. The fact that your face may be as appealing as Cinderella's stepsister's is of relative unimportance. From now on you can truthfully tell the world that you've "dabbled in modelling".

"Your next step (if you are smart) is to get a job. But not any job. You must desperately try to get absorbed in a reputable firm, preferably a foreign one. I have been informed that tobacco companies and oil companies are the most lucrative: their demand for secretaries and receptionists is practically inexhaustible. Even more important, you are automatically invited to almost every reception and cocktail party hosted by the company. If you are exceptionally lucky you might even get a carton of cigarettes or a gallon of petrol (here's the thrilling part!) FREE. If despite all you efforts you still cannot wangle your way into a tobacco or oil company, don't deaspair. The "Answer-To-Every-Girl's-Prayer" (commonly known as the advertising agency) is still around. The fact that you have no talent or aptitude for copywriting is inconsequential—it just may help in establishing you as an emancipated, independent, "bright young thing",—And so, from "bright young thing" you progress to "demure young bride", provided you are reasonably coy and willing to follow the rules of the game. This entire

process underline the many contradictions in our society—a society which sniggers at healthy boy-girl relationships, but is willing to debase its daughters in this "decorous" way."

Even though the writer of the article, Farzana H. Ali wanted to stress a different aspect, I have used her precise observations as they very much help to portray the predicament of our educated women. At this stage of our national development, it is most important that we have a very clear and accurate concept of the role of women of our country if we are to avoid blunders in planning and lead our women into an even more unfortunate and confused position. Our objectives must be clear. For example, if we are planning for total female participation in all spheres of employment on the basis of absolute equality of male and female roles, then we must allow for either, free competition for all government posts and college seats without any quota for men and women or we can start by insuring that fifty percent of all government jobs and fifty percent of all our educational institutions have women on their rolls. Such a step though it will require many years to take effect must be aimed at if total similarity of male and female roles is thought desirable. On the other hand if we are to assume that men and women are basically different and as such their roles are not identical in all respects, then our planning must take a different road. It will have to define at the outset what different roles are to be incorporated in the planning. Since we are shortly to have a new constitution, it is hoped that the members of the national assembly, both men and women, attempt at the earliest in defining the legal, political and economic status of women that can be embodied in the Islamic constitution that we hope to have shortly.

The women of Pakistan have several choices to choose from. They have in addition several examples, of womens roles, in varying degrees of involvement and status. They have the American example in which they can see several of the changes that can reasonably be assumed will eventually come to our country. They have a vast treasure of anthropological, biological, medical and sociological knowledge to deduce and rationalise from. They can if they so wish for American style of involvement, without its accompanying pains if possible. They can do it without much fuss as has been done in Sweden. The Pakistani women must strive to correct the mistakes that have been made at the national level of planning and development. They must see that the tremendous loss of "womenpower" is brought to an end. This will end the great vacuum that women of our country feel when they are not usefully employed. The women must also ask themselves the fundamental questions that have unfortunately not been looked into. For example they must define their aspirations in no uncertain terms. What kinds of roles they wish the future generation women to play? Or, for example, they can ask for a truly just constitutional status and state their just demands in precise language. It is no good saying that we are not liberated. The biologists, social anthropologists, historians, sociologists and men and women from other related disciplines of

science must work in close harmony to arrive at a comprehensive plan of action. This is the time to do it as our nation is young and corrective measures can be taken so as to avoid costly and bitter conflicts of economy and psychology of the nation.

The women of our country can look ahead and concentrate their attention to tasks that have been neglected. For example they can help in the integration of our people. Or, they can prevent our streams and our atmosphere from being polluted by forming a national council of women which would force the government to frame such rules that would ensure clean air and water. Health and education have long suffered from government inattention. Women could devote their energies to this task. At present some agencies are taking measures, but their efforts have yet to make impact. These organisations must convince the educated and unemployed women to come forward and join in the noble aims. The women could even work for world peace and disarmament and many other praiseworthy causes. But, all this can be accomplished only when our women are convinced of the roles they are playing are in conformity with their concept of feminity. It is the authors desire that these very important questions be settled at the earliest so that our country grows to be prosperous and has a reasonably happy population instead of being torn by internal strife between the sexes.

FOR FURTHER READING

1. "Men drive women crazy"
   Phyllis Chesler
   Psychology Today-July 1971

2. "Culture, Biology and Sexual Roles"
   Diana Trilling
   "Dialogue"-Vol 3. No. 4 1970

3. Morton M. Hunt

4. "Further careers of young British Doctors"
   J.M. Last and Eda Brodie
   British Medical Journal. Vol 4 pg 735-738
   Saturday 19th Dec 1970

5. "Dictionary of Sexism"
   Varda Murrell

6. "Times Three"
   Phyllis Mc Ginley

7. Dowlite International 1970
   page 272

8. "Out on a Limerick"
   Bennet Cerf
   Harper and Brothers

9. "The Marital Rat Race"
   Farzana H. Ali
   "The Herald" August 1971
   (Karachi)

The Graveyard Queen

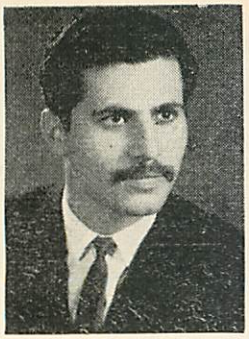
Zubair Farooq

1st year M.B.,B.S.

Cries accompanied the silence of death
at a graveyard where a youth hath
been buried, grass and silence prevails
only with loneliness that wails,
and the red colour of the sky greeting
the beautiful queen of night, meeting
the strange silence that this graveyard holds
the dark shadows and this moonlit golds*
that has on it an old battered garland
which is wet with rain and hammered with wind.
The weird darkness and its gloomy shade
has only light from the moon made.
No one ever visit this grave
shamefully its story is forgotten save
the golden youth of the one dead
lying where fate made its bed
the tears some shed long ago are gone
only the moon and dewdrops mourn
the virginity of the graveyard Queen
which fading away as a mirage is seen
The sad sad voice of the nightingle
makes perhaps only the epitaph wail,
there's no one here to hear or moan
only the glittering youth of the dead forlorn.
She was as beautiful as be a rose
but only the daisy now sheds woes

* The grave yard Queen.

She is a bud which unblossomed died
withered, leaving no trace by its side.
In the silence the graveyard quickly moans
Jasimine in fits of madness groans
Sunflowers and the Marigold cry
For beautys which forgotten lie
On the sky a whirlwind of complaints grind
but is only greeted by the wailing wind.
The bonds of love, still broken lies
as impatiently the Hawthorn cries
and reminds the world of the fate so foul
Where there's no one to weep for a forgotten soul.
O what will now of this world become
When all this world is gruesome
O when will this misery end
When will people love their band
Who will scorn the hands of fate
And break the burning bonds of hate?



What Do You Know About... Palestine and the Palestinian Problem?

Ghazi
IV Year M.B.,B.S.

— Palestine is an Arab State which lies on the shores of the Mediterranean Sea. It lies in an area bounded by Lebanon and Syria in the north, Jordan and Syria in the west and Sinai Desert (U.A.R.) in the south.

— Population of Palestine is about 2 millions.

— Jerusalem is the capital and the main cities are Haifa, Jafa, Acre, Gaza, Lydda, Hebron, Nablus etc.

— 2nd November 1917: the date of the Balfour Declaration (Balfour was the British Foreign Minister at that time), which gave the Jews the right to migrate to Palestine, and promised them the right to establish a national home in Palestine.

— In 1920, 1933, 1936, 1937 and 1938 the Palestinian Revolution emerged, once the Palestinians felt the dangers of the increasing Jewish population and their expansionist ideas. In the year 1936 a continuous general strike lasting for six months was observed all over the country.

— 29th November 1947: the United Nations after much deliberations succumbed to the influences of political powers and in one of its glorious instances of inadequacy passed a Resolution calling for the partition of the state of Palestine, the Palestinians rejected the Resolution and they carried on their struggle.

— 15th May 1948: the British withdrew from Palestine and a war broke out between a few independant Arab states which were ruled by British and the Jews (Zionists) and at the end of which the area alloted to the Zionists was increased and the state of Palestine was divided into three parts, the major part was occupied by the Zionists which came to existence as the Israeli State and was recognized by USA after a few hours, followed by Russia. The second part was attached to Jordan (West Bank of Jordan)

and the third part was attached to UAR (Gaza Strip) and according to that Jerusalem was divided into two parts: one ruled by the Zionists and the other was in the West Bank of Jordan.

— May 1949: Israel was admitted in the United Nations and the Palestine Question entered a new phase in the struggle against World Imperialism.

— 1st Jan. 1965: the first attack launched by Al-Assifa, the military wing of Al-Fatah (The Palestine Liberation National Movement) and the Commando forces came into action in the battlefield. A few days before the war broke out in June '67, the Commandos called for the unity of the Arab forces and they warned the Arab States of an expected attack by Israel.

— 5th June 1967: War broke out, the Zionists launched an attack on UAR and a few Arab States took part in a war which lasted for six days only at the end of which the remaining two parts of Palestine along with Sinai Desert (UAR) and the Golan Heights (Syria) were occupied.

— 21st March 1968: the Battle of Al-Karameh, in which the Commando forces, with their machine guns and hand grenades alongwith their brothers in the Jordanian Army defeated the huge armoured forces of 10 times larger size, supported by tanks, after the Commandos managed to drag the Israelis into a hand to hand fight, and thus proving that the Israeli Army can no longer be called the Undefeated Army.

And now, after more than six years of continuous struggle, the commandos still carry their arms and fight and they are determined to carry on their struggle for the liberation of their homeland and for the creation of a democratic state in Palestine in which all people of various religions can live together in peace.

AND
REVOLUTION TILL VICTORY.

/friend is one who walks in where the rest of the world walks out.

HELLO DOLLY!

Arif Omer

Second Year M.B.,B.S.

"..... when he shall die
Take him and cut him out in little stars
and he will make the face of heaven so fine
That all the world will be in love with night
And pay no worship to the garish sun."

His very day of death seems too bad to be true, 13th July' 70 which has about it the air of being the conicidental attempt of fate of adding an ironic twist to the day. But that chronological accident is nothing, for any other day would have been similarly drenched with sorrow.

His life had only started observing dreamily the first feathering green lips of spring and the crisp, fresh wind of late twenties had added a few-extra pounds to his strapping six foot structure. The intrinsical value radiated a little more with the French whiskers he wore and the warm smile closed his Mongoloid eyes.

And between the life and death of this man; so much happened in so little time that even he had a hard time believing it. Gholam Husain Dolly, started so young with things that many people even wouldn't conceive of in their middle age; and with time managed not to grow into something violent and menacing but rather preserved his innocence and like all good things in life he went away too soon.

He was born in South Africa—nation whose loosely woven fabric had been torn open by racial discrimiation and colour bar, his father fell as a victim to the differences and in his mid-forties was hanged. Dolly, was in his teens, and then it was not all play to be young and fatherless and sensitive. It was the time, he went on sticking bills, doing odd jobs and running errands not because of any economic pressure but because factors of affluence desired so, and the inbred conviction came out to be practised for which he had to pay a great price.

Meanwhile, the government and the conditions kept up their graceless flirting with the cause of blacks over the years. Gholam, kept his clever skating along the out skirts of the flabbily principaled and dangerously over conservative fads of the time, moving from place to place as a fugitive, a misfit or partly both and couldn't always find an excuse hospitable to his conduct; but could always find a reason to be hostile. But the two facts always joined together to land him in front of the cops. It was completely inconceivable to slide smoothly between the

sharp edges of clashing principles and there find a glib, oozy area of gummy compromise, and rationale that effectively blurred everything, enervated all issues, weakened firmness and rapped resolve in a way that hamstrung his own position and could make the opposite side to move a few steps farther. Finally being exasperated and blacklisted, Gholam applied for the exit permit and for the first time added his pet name Dolly to the full officially to facil'tate his escape.

In this country where, he said he could 'do the most good. Dolly in his own new way fought at the old frontiers trying to revise the blue-nose beliefs to fit the new Super Third World; and this was his ideal, ideally conceived; A spirit worshipped in spirit and in truth took the p'easing phenomenon, and the noble discipleship of the cause yielded to emulation and worship to an admiration more-or-less selective and critical and ennobled him not so much because it nerved him to work or die, which the basest passion way also do, but because it associated him in working or dying, with an immortal and friendly companion, the spirit of his race, the community of man. This he had received from his ancestors tempered by their achievements and transmitted to posterity qualified by his own.

Gholam, talked with a hieratic smile, half mischief, half content, and his deep voice flowed evenly in cadences smooth and balanced only that he missed his 't's' and conveyed ideas with smiles and ribboned with wisecracks followed by a hearty reference to a story of someone back home, one of his 'memorable miniatures' that were full of savory mortal comedy. In one of his deep, pensive moods he used to talk with the intricate perfection of poetry, and a import of philosophy unfolding anecdotes with fanciful truth of sorrowful beauty of humorous irony that compositely constituted and reflected his life so well and elaborately explained a line of his poem that became his epitaph: "The cruelest blow of life is death."

The black mood was prevalent on him and was too black even to last till the next morning when he woke up from the little sleep few hours before he had to close his eyes for an endless one. With the last few breaths he talked about the end being very near. Same evening we left him there with Mother Earth where from we all have conceived the bright right of existence and stared at the grave till our hearts and souls were instilled and purified with the eternal truth of love.

Gregarious sentiments today are active, expectant, watchful, at once powerful and indistinct troubled and fascinated by things merely impossible and are engulfings storm of emotionalism that prevails many a time making us think and wish if we could have only seen him for another five minutes and would have with all our hearts and all our souls, our indulgence and given him of our love most abundantly and extravagantly, but then this is a thought, for we can only smile tragically at the glory that was Gholam. But with all the memories of our association that are still pure as gold, and so much that come from this counsellor and guide that I want to paraphrase, what an author said on death of his friend: "Gholam Husain is dead But I don't have to believe if I don't want to".

Approach to Atherosclerosis

Syed Abdullah Iqbal

B.Sc. (Hons.), III Year M.B.,B.S.

Atherosclerosis is associated with a variable combination of Changes in the intima of arteries with focal accumulation of lipids, carbohydrates and metabolic products, fibrous tissue and calcium. Some of the factors that have been implicated in the genesis of atherosclerosis.

1. Diet.
2. Heredity.
3. Hypertension.
4. Stress.
5. Diabetes.
6. Hypothyroidism.
7. Climate.
8. Smoking.

It can be seen that lipids are only one of the above factors concerned with disease. Atherosclerosis occurs in Aorta, Cerebral, Renal, Iliac, Coronary and Femoral arteries. There is a gradual narrowing of artery leading to a reduction in the blood supply, and there may be sudden occlusion of vessels due to superimposition of a thrombus on atherosclerotic lesion. In earlier stages of the disease there is a focal accumlation of fat laden cells under the endothelium. Subsequently fibrous tissue is added, and there is ulceration followed by other changes.

Since the serum lipids are main predisposing factor much of the research on this vascular disorder is aimed at finding out abnormalities in the serum lipid component. Many investigators have demonstrated the co-relation between elevated serum lipid levels and the incidence of coronary heart disease and atherosclerosis. They have showed that patients with Atherosclerosis can have following disturbances in serum lipids.

1. Raised concentration of lower density lipoprotein mainly triglycerides with normal concentration of normal low density lipoprotein. Containing chiefly cholesterol.

2. Raised lower density lipoproteins with normal low density triglycerides.
3. Raised concentration of both lipoprotein fractions (cholesterol plus triglycerides).

Above observations show that cholesterol has been one, most often singled out as being chiefly concerned in this vascular disorder, and it has been proved experimentally in various animals by feeding diets, high in fat and cholesterol. Hypercholesterolemia is a constant feature in human atheroselerosis. Role of Cholesterol information of the atheroslerotic plaques is not clear. Regardless of exact role of cholesterol in atheroselerosis major efforts have been centered in lowering of serum cholesterol both for prophylaxis and treatment.

DIETARY MEASURES TO REDUCE SERUM CHOLESTEROL

Substitution of polyunsaturated fatty acid with saturated fatty acids. Vegetable oils that contain high concentration of polyunsaturated fatty acisd will reduce serum cholesterol in majority of persons when used in place of saturated fats.

Following are a few out-standing dietary sources of polyunsaturated fatty acids.

Safflower, Corn Oil, Cotton seed Oil, Peanut Oil, Soybean Oil, Sesame Oil, and Olive Oil. The mechanism by which polyunsaturated fats lower cholesterol level is not clear. The theories that have been presented are (a) by influencing absorption and transport of Cholesterol (b) by increasing the Catabolism of the Sterols.

Above mentioned vegetable oils are rich in essential Fatty acids (Linoleic acid, Linolenic acid, and Arachidonic Acid). It has been claimed that esters of polyunsaturated fatty acids with cholesterol are more rapidly metabolised by liver and other tissues, which might enhance their rate of turnover and excretion.

When dietary measures fail to reduce Serum Cholesterol, then drugs may be used to achieve the same.

DRUGS USED IN ATHEROSCLEROSIS

ESTROGENS: Estrogens are used because the disease is much less common in premenopausal women. It has been claimed that estrogen has an effect on the various Cholesterol esters in man. Mode of action of estrogen is not clearly understood.

THYROXINE: Thyroidectomy or treatment with thiouracil drugs produces atheroselerosis in animals. Low blood cholesterol is a characteristic feature of hyperthyroidism, inspite of increased rate of cholesterol synthesis. The fall in level of plasma cholesterol may be due to increased rate of turnover and excretion. A variety of thyroxine analogues have been synthesized for this purpose.

CHOLOXIN: (SODIUM-d-THYROXINE) Has a relatively greater effect in reducing serum cholesterol level than in increasing Oxygen consumption, when used in doses of less than 8 mg/day.

The mechanism of action is not certain but they probably promote the catabolism and excretion of cholesterol i.e. same as that of thyroxine.

Blocked by Colifibrate → ACETYL-COA
↓
MEVALONATE
↓
SQUALENE
↓
LANOSTEROL
↓
ZYMOSTEROL
↓
Blocked by Triparanol (MER-29) → DESMOSTEROL
↓
CHOLESTEROL

HEPARIN: Injection of heparin has the remarkable ability of decreasing the turbidity of plasma following alimentary hyperlipemia. The actual clearing factor appears to be a lipase which is released by heparin from its bounded sites. This lipase catalyses the hydrolysis of triglycerides. The triglycerides of plasma form chylomicrons. The neutral fats that are split off by enzyme from Chylomicrons are gradually dissolved in the plasma. The clearing factor is present in various tissues and appear to be released from sites by Heparin. The use of heparin is in experimental stage and it is impossible to say definitely whether it has any usefulness or not, because of its anticoagulant effect.

NICOTINIC ACID: When administered in very large doses it decreases not only serum cholesterol but also triglycerides. Doses as high as 3 to 6G. are required but they cause serious side effects. The mechanism by which cholesterol is lowered has not been clearly worked out. It is suggested that the great demand of methyl group in nicotinic acid detoxication, causes reduced cholesterol synthesis because methyl group is also essential for synthesis.

TRIPARANOL (MER-29) : It was used quite extensively until its toxic effects were established. Triparanol blocks the final biosynthetic step of cholesterol. However, its use leads to accumulation of desmosterol in the serum, which is unwanted.

CLOFIBRATE (*Atromids*) : Chemically, Chlorophenoxysobuty-rate, when administered orally in doses of 500 mg four times daily, will lower the concentration of triglycerides, lipoprotein and cholesterol in plasma within a few weeks. The exact mode of action is not known. According to some authorities the drug blocks an early step of cholesterol biosynthesis at a stage between acetate and mevalonic acid.

CHOLESTYRAMINE (Questran, Cuemid) : It is a quarternsy ammonium anion exchange resin. It acts by combining with bile acids in the intestinal tract. The complex being unabsorble is excreted and this leads to the inhibition of enterohepatic circulation of bile acids, thus stimulating their production in liver. In their production cholesterol is used up and this increased bile acids production causes decrease in plasma cholesterol level.

TYPES OF HYPERLIPOPROTEINEMIAS AND IT'S MANAGEMENT

The Fredrickson classification, identified five different lipoprotein patterns. Which are designated types (I)—(V). The use of lipid lowering depends upon the type of hyperlipoproteinemia.

Type—I	Characterized by raised Chylomicron and triglycerides level with normal cholesterol level in the serum.
Type—II	Beta lipoprotein and cholesterol are raised with normal triglycerides.
Type—III	Pre-beta and beta lipoprotein triglycerides, and Cholesterol are raised. The patient's hyperlipoproteinemia is aggravated by carbohydrate absorption.
Type—IV	Pre-beta and triglycerides are raised while, cholesterol is normal and patient is sensitive to carbohydrate absorption.
Type—V	All types of lipids are elevated. Commonly Atherosclerosis of types II, III, & IV occurs.

MANAGEMENT

Type—I	is treated with a low fat diet.
Type—II	requires a low cholesterol diet and in some patients Cholestyramine resin (16 to 32 G./day) or Colfibrate (2 G./day).
Type—III	it's treatment consists of low cholesterol, low fat, and isocaloric diet and Clofibrate (2 G./day).
Type—IV	It is managed by weight control and restriction of carbohydrate to less than 37% of total caloric in-take.
Type—V	Treated with diet alone, and weight control.

Pakistan an Islamic State

Shahnaz Hamidali Khan

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

On the 14th August 1947, A new independent state of Pakistan came into existence. For the Muslims, it was a triumph, because after centuries of hatred and domination, they had a free state. A state in which they could, according to their religion and different outlook have a different way of life. In other words, the new state was an Islamic state. It was Islam, that first brought it into being and that continued to give it meaning. The purpose of setting up the state was to enable the Muslims here to take up once again, the task of implementing their faith and also in the Political Realm.

The principle of many aspects of our lives is Religion, but the principle of our state is not. A nation can only be as Islamic as its people want it to be. But in this age, the majority of our people are either fanatics about Religion, or do not know anything about it at all. The Quran instructs us not to commit excesses in any walk of life, especially where religion is concerned, as the fall of other religious communities was due to this, yet the blind fanatics in our communities do only that.

Islam is not just prayers five times a day, Islam is a code, a way of life you can adjust yourself to in our modern times. The principles of Islam, if practiced by every person in our country would make our future great. The Muslims who created Pakistan had been inspired by Islam, as an **Ideal.** But, the majority of our people bring belief to Islam as it is the religion they were born with, not because they know Islam. These people know Islam not in its purity and true glory, but through curtains of 'Shiasim' or 'Sunnsim' etc., as the case may be.

Islam in all its beauty is unity, yet sectionalism prevails strongly in our society, one of the main reasons for the fall of the Muslim Empire is the break up of Unity of our people, and exercise in sectionalism. Quarrels broke out between two people and brother killed brother, not realizing what blind fools they were when they were killing over a political argument of bygone times, and not for Islam. The Muslims in a long gone age were the forerunners in every field, especially the sciences, but petty differences arose and due to jealeously, greed and lust for power they fell and have not yet returned to that position.

The sheer hypocrisy of our people, can be seen in the fact that dishonesty exists in nearly all walks of life. If you have a pocket full of cash in this city, you

can bang up any car and escape scott free with a little bribing. Cloth you see in one shop at a high price will be found in different shops at ten different prices.

Let alone dishonesty, even sheer common decency and good manners do not exist anymore. No respect is given to elders, teachers, or anyone for that matter and especially the women folk. Names which men would not mention in front of mothers or sisters are screamed out at girls across street everywhere. Examples of this we have enough in this city when frustrated hypocrites who pretend to be very "shareef" after glaring their eyes out scream the most obsence comments. Who are these people?

They say they come from decent respectable homes, yet what decent parents would give their off spring such trashy manners. Respect to women folk is the most stressed point in the Holy Quran, yet who, respects who, in this Islamic State.

Money has become the god that most people worship these days, and they will lie, cheat or do anything to get it. But what spiritual satisfaction they get from this I wonder! More likely they end up with sleepless nights. How much is given out of this in charity too, I wonder! This is another compulsion in Islam.

The state consists of the people and unless our people cultivate habits of decency and good manners, kindness and hard work. Unless they shun hypocrisy and truly practice Islam, and forget sectionalism can they, truly make themselves prosperous people, an Ideal Islamic state. It is the people who will make it into what it is to be and this can only be done by strong characters with faith in our hearts. But at the moment, a handful of people in this country posess these Virtues.

We Muslims are people, blessed with God's guidance, the Holy Quran and our state Pakistan. An independant political community as the arena of Religious activity is part of the very genius of Islam. The existence of such a community is not something peripheral, it lies close to the heart of faith. If this country was ruled by Islam, it would achieve the highest glory, therein its destiny lies.

"Well", snarled the tough old sargeant to the private", "I suppose after you get discharged from the army you'll just be waiting for me to die so you can come and spit on my grave".

"Not me Sarge" the GI assured him "Once I get out of this Army, I ain't never going to stand in line again".

The Indian Politicians

Mushtaq Ali

First Year M.B.,B.S.

Our Bengal they want in an unlawful way,
We could for Kashmir, the same say.
But not are we, of the dirty blood,
May they, the traitors, sink in the mud;
As they always have, on every move,
Tried as much as they could, to intrude;
On our peaceful land, the land of Muslims;
Oh! Divine hath helped us, and removed their whims.
Defeated once not, but again and again,
Are they not now, frustrated and vain?
O yet they try to overthrow that stream,
But it is always for them, a bitter dream;
As they get up, it vanishes from their mind,
They see around them, and find they are left behind,
From the far progressing World, at peace
And also from those, whom they tried to tease.
They have got up certainly, but too late
The Seventeen types of people are in a confused state.
Blood, they tried to warm of other lands,
Now they sit and watch with tied hands,
"What fate hath brought on you, my dear,
That you! the fate of others tried to steer."
Nay, now too there is no peace of mind,
The hand is tied, but the mouth, not kind
Utter words ye, for the sake of your mistakes,
Not to say sorry, but to make more lakes;
Of the kind you had made before,
To down yourself, and your comrades more.
Fate hath struck thee a hard-blow,
Yet you try to oppose fate, and glow.
Your mouth will never shut and you would go on speaking,
Till your whole house is ruined, and you are weeping,
Yet you will utter the words of the same,
"I am right," but this time, it would be in pain.

THE SPARK OF GENIUS

Fauzia Qaddus
Final Year M.B.,B.S.

The spark of genius is flame of joy,
A streak of light across a dark dark sky,
An inspiration which is real coy.
A mystery as to how it came by.
The spark of genius is a moment's revelation,
Something that strikes, no not an observation;
A tower of light in mind's haziness
An arrow which points through life's crazy mess.
The spark of genius is a joy supreme,
Afterwards seems like a dream that's been;
As if a diamond from heaven had been dropped
In a jungle which some eagle's eye had caught!

Way to Peace

Munirih Mali
Final Year M.B.,B.S.

This world
Whispers one anthem only
A hymn of Love and Light.
Why then all this chaos and war?
Let us plead on for Justice
And strive on for Right.
Lead forth the nations from bondage of war.
No war, nor pestilence,
No pen, nor sword,
Nor loss of family or friend.
Walk swiftly forwards with steady feet,
Unite each heart as they meet.
Scrape out creeds which have kept us far apart.
Speak one universal language to join our hearts.
Make the earth a habitation
For the human man
And love of human being for all.
So that we may join in a chant of worship
To God the source of all.

OOPS! PARDON ME

Tariq Zafar
Final Year M.B.,B.S.

COMMERCIAL: "So stop by our downtown store and visit our fashion centre. You will see our loverly models in heat. . . . (PAUSE, TURNS PAGE)... resistant fabrics which will keep you cooler this summer."

* * *

Children on audience participation programs are often unpredictable. Let's listen to a kid show of a few years ago known as Make A Wish.

EMCEE: "Now Mariam, if you had your wish, what would you want most?"

CHILD: "I want to go to the toilet!"

* * *

QUIZMASTER: "And what are you doing now?"
CONTESTANT: "I have a fine job."
QUIZMASTER: "What are you doing?"
CONTESTANT: "First I sold ladies stockings, then I sold shoes, and now I'm in negligees and bras".
QUIZMASTER: "My, you're certainly getting up in the world!"

* * *

At the launching of QUEEN MARY, one of England's proudest luxury liners, a B.B.C. announcer made this observation. "From where I am standing, I can see the Queens bottom sticking out just over her water line."

* * *

Sign over an electric chair
"You can be sure. It's Westing-house."

* * *

"Doctor, I still can't see," said the little blind girl after the operation.
"April Fool!"

* * *

"How'd you blow that tire?"
"Ran over a milk bottle"
"Did not you see it?"
"Damn kid had it under his coat"

* * *

"Pilot to tower. Out of gas 300 miles over Atlantic. What shall I do?"
"Tower to pilot. Repeat after me. Our father who art in heaven. . . ."

* * *

Then there were the three bears. One married a giraffe. The other two put him up to it.

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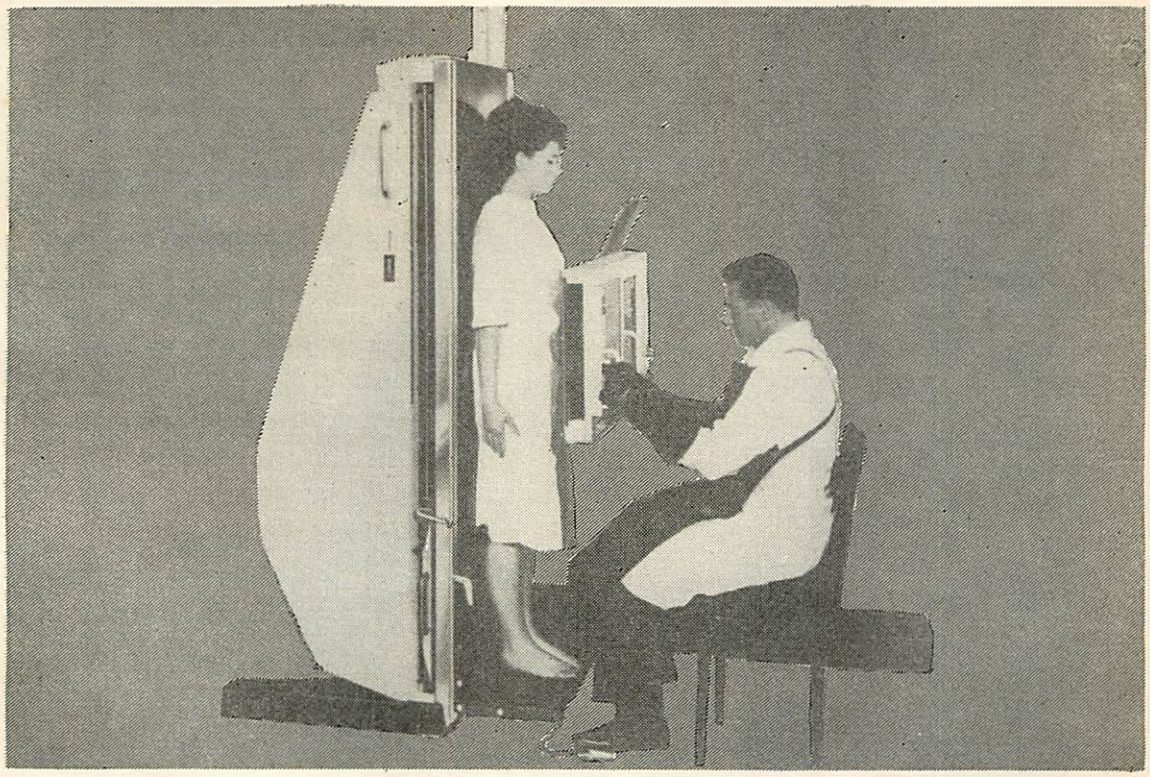

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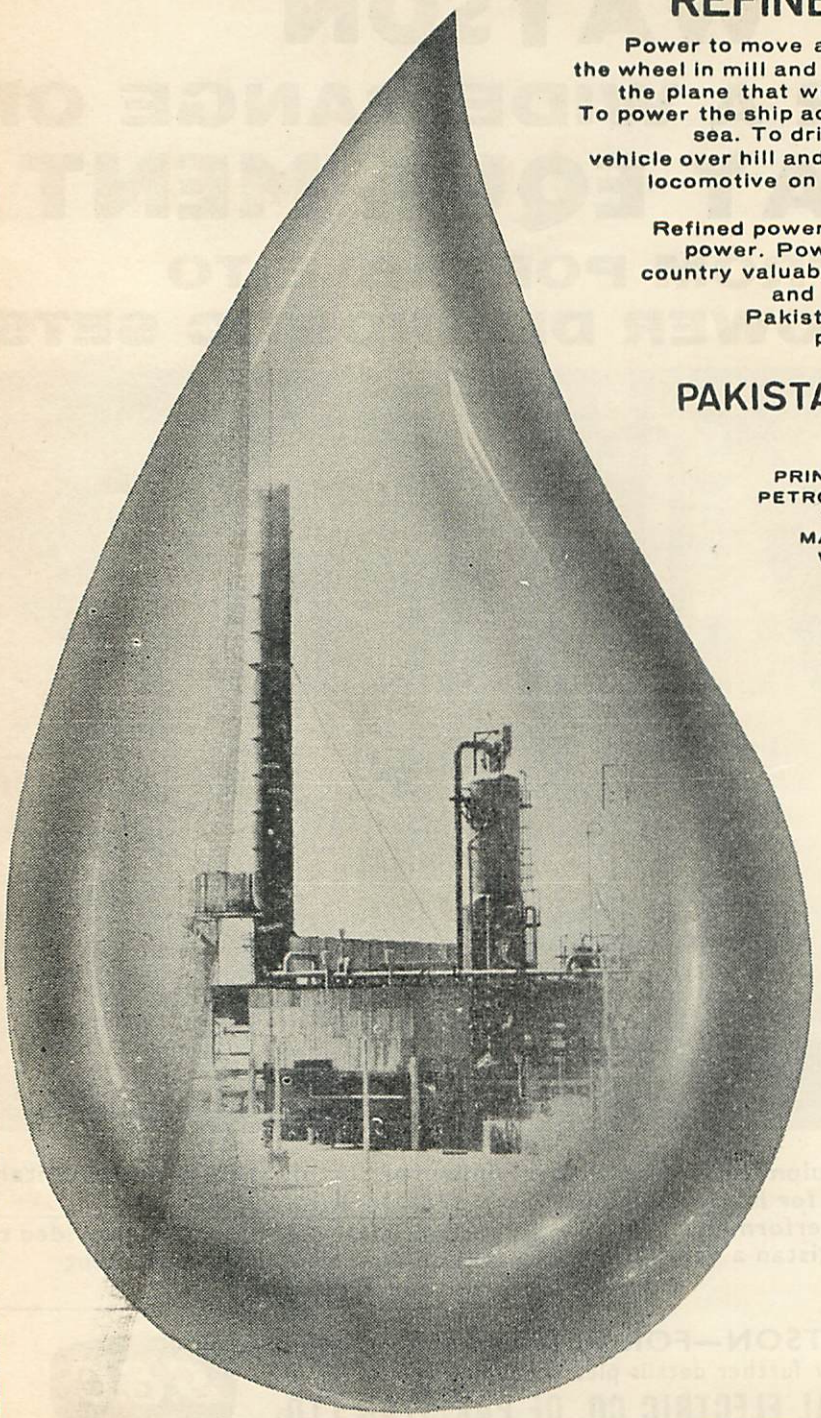

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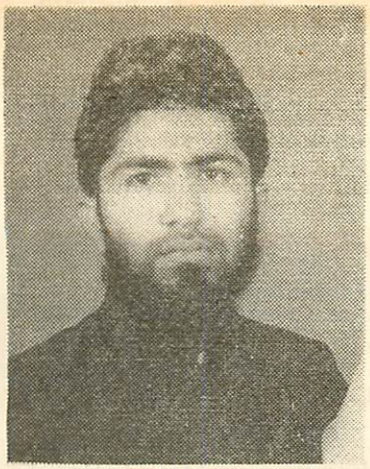


Modes of Treatment

Abdul Hakeem

III Year M.B.,B.S.

In fact that system of Islam to which the name "Life Training" is given actually consists of many important properties and peculiarities. Along with the teaching of books the light is also thrown on spirtuality but not limited to it only, but God also teaches us about our physical and mental health. At different periods and places it is mentioned through his messenger, the Holy Prophet Hazrat Mohammed (*Peace be upon him*) and Holy Quran the importance for the maintainance of our health. At some places God has strictly warned, for it any one who does not care for his health which is the best gift for him of his life will have to be ready for its reward. In other words if due to neglect or refusal of treatment makes simple disease into a fatal one and death follows is considered his own fault.

When we consider the way of treatment we find three basic things on which it depends. Actually these basic principles which are written in our Holy Quran and were put forward by our Holy Prophet Hazrat MOHAMMAD (*Peace be upon him*) fourteen hundred years ago, the garland of which the modern physicians want to wear on their heads.

These principles are:—

1) Personal Hygiene.
2) Use of drugs.
3) Removal of Harmful matter from the body.

1) **Personal Hygiene:** In short it teaches that there should not be any source which may endanger the normal routine of our life.

God has taught us the same lesson.

"But if any one of you is sick or on a journey, the prescribed number of fast (*Should be made up*) from days later (2/184)".

In this Ayat by keeping the care of physical and mental health during journey it is not allowed that one should keep fast so that it may not prove endanger to the health.

2) **Use of Drugs:** For the treatment of any disease we adopt the measures for its remedy i.e. use of drugs by the routes as needed.

In the light of Hadees Shareef, we will find Holy Prophet MOHAMMAD (*Peace be upon him*) ordered to use the drugs.

HADEES SHARIF:

I. Allah has created sickness and medicine and he made medicine for each sickness. So get medical treatment. But do not use Haram for treatment.

II. Get medical treatment as Allah has not created any disease but has created medicine for it except for one disease————Old age.

In the light of above Hadeeses we can say Holy Prophet MOHAMMAD (*Peace be upon him*) has not only persuaded to use the drugs but ordered to do so, obviously promotion of health and trying to cure a disease is the ordinary course of nature. The drugs which were used by our Holy Prophet (*Peace be upon him*) and the mode of treatment which he (*Peace be upon him*) acquired for the treatment has important peculiarities.

Usually simple drugs were used such as, Honey Date (Fruit), Shrub, and other things drugs like these. In some diseases other measures were acquired externally as:—

Bath of cold water released the fever. Because Holy Prophet said "Fever is an attack of Hell fire" Therefore when he used to suffer from fever, used to take with cold water.

Moreover we can learn another lesson since God has created sources of every disease, it is now our responsibility to search out the view curative measures for the diseases which are still obscure. Because GOD has now given us this Dignity and honour and infact it is not the responsibility of a layman.

III. **REMOVAL OF HARMFUL MATTER FROM THE BODY:**

One of the measures of treatment in removing the harmful matter from the body was acquired by our Holy Prophet includes Inoculation by an Insect (leach) which use to suck harmful blood from the body. It corresponds with the modern way of Inoculations by Injections or the use of Scalpel or in other words, operations.

This is the brief discussion of mode of treatment but it is really the Holy Quran which is the natural Miracle which was told by our Holy Prophet (*Peace be upon him*) fourteen hundred years ago which have been discovered now by the modern Doctors and Scientists.

QUOTATIONS

Rabbia Shaukatullah

Final Year M.B.,B.S.

No quality will get a man more friends than a sincere admiration of the qualities of others. It indicates generosity of nature, frankness, cordiality, and cheerful recognition of merit.

"DR. SAMUEL JOHNSON"

Not what you do, but how you do it, is the test of your capacity.

Wise men have but few confidants and cunning ones none.

"H.W. SHAW"

Forgive thyself nothing; but others much.

One makes one's own happiness only by taking care of the happiness of others.

"SAINT PIERRE"

He who has conferred a kindness should be silent; he who has received one should speak of it.

"SENECA"

If life is hard for you, try to make it easier for somebody else.

"W.S. PERCY"

Praise loudly; blame softly.

"CATHERINE II"

As long as a man stands in his own way, everything seems to be in his way.

"HENRY THOREAU"

True friends visit us in prosperity only when invited; in adversity they come without invitation.

"THEOPHRASTUS"

Duty, too often, is the thing that one expects from others.

"OSCAR WILDE"

There's only one rule for being a good talker, learn how to listen.

"JAN ARNOLD"

The common denominator of friendship is a smile.

"JOE E. BROWN"

He's the kind of child that people like who don't like children.

"CELESTE HOLM"

Islam and the Class System

Aftab Ahmad Qazi

III Year M.B.,B.S.

Before I discuss Islam's attitude regarding the concept of classes, it may be useful to understand what is generally meant by a class system. In medieval Europe, for instance, there were three distinct classes. The Nobility, the Clergy and the common people.

The clergy had their own distinctive clothes. In those ages the power of the church was equal and at times opposed to that of the Kings and Emperors. The Pope claimed that it was he who conferred power, owing to the property donated by the religious and the exactions imposed on people, the church became so rich that at times it could have armies of its own. On the other hand, nobility inherited nobleness from their forefathers and passed it on their descendents. A man belonged to the nobility by birth and remained as such until his death regardless what ever noble or mean actions he might have done in his life time. In the feudal age, the nobility exercised absolute powers over the common people who lived on their estates. All the legislative, Judical and executive powers were in their hands. As for the common people they had no preveliges or rights. They inherited poverty, salvery and humilation and passed them on their descendants. In modern times, the capitalist classes have replaced the old nobility. The fact is that the capitalist class still has the property, the power and the influence to steer the government machinary. The class system is based on the wrong assumption that the property means the power and the class which has the property must have the power as well. In the light of the above mentioned definition of classes, it may be truly said that there has never been class system in Islam. There are now laws in Islam which aim at keeping the property in the hands of particular persons. The Holy Quran says, "In order that it may not merely make a circuit between the wealthy among you".

It is Islam that ensures the proper distribution of wealth. According to Islamic law of inheritance the inherited property should be distributed among a large number of persons. History bears witness, that property in Islamic Society was constantly exchanging hands without being confined to a particular faction of the people.

The Holy Quran says, "God has bestowed his gifts of sustenance more fully on some of you than on others."

"We raised some of them above others in ranks." These relevant versus do not mean that Islam recognises the class system, but the two verses merely describe what is actually taking place on earth, be it under Islamic rule or other wise. Let us take Russia or China for example—Do all people get the same wages or are some people more previleged than others in livelihood? Are all the conscripted people made officers or soldiers or are some of them raised above their ranks? The existence of differences among people is an inevitable fact.

It must have become clear by now that the Islamic Society does not allow any undue privilege of an individual over another. It is also to be pointed out that ownership of land under Islam did not confer upon land owners any special privilege or rights by which they might enslave or exploit others. The same thing would have happened if capitalism had existed in a truly Islamic Society, especially because the ruler does not derive his power from the property class but he is elected by the nation and is carrying out the law of God.

"I CAME, I SAW, BUT FAILED TO CONQUER"

Mubeen Hassan

Second Year M.B.,B.S.

When I was brand new in DMC, trying to make a name,
I searched for dames to conquer, an easy way to fame,
So when my dear old teachers, were looking the other way,
I'd turn to a damsel nearby, and try to be most gay,
Giving a damn for the lectures, I'd turn on the oozing charm,
Indulging in romantic overtures, I really saw no harm,
The field was large and prosperous, and the boy-friends very strong,
But the way they went about their task, the ladies said was wrong,
To release them from their bondage, and make them totally free,
Became my first great challenge, and I plunged headlong in glee,
I marshalled all my forces and drilled myself night and day,
The boy-friends weren't ready, so I attacked without delay,
Four of my faithful buddies, joined me to even the score,
And after frightful battles, the boy-friends were no more,
I rounded up the leftovers and subdued every faction,
A most successful ending to my first major action.

'Twas several days thereafter that my buddies gave the word,
That the vanquished Cassanovas had said, this ain't the last you've heard,
"They're making warlike noises, and want to conquer us,
We'd better go and grab 'em, before they make a fuss,"
The enemy got ready for the battle, night and day they trained,
Here was my oppurtunity for further fame and gain.
I practised war manoeuvres with my soldiers numbering four,
Two formed the mighty artillery, two the armoured corps,
And then I gave the order to fire our deadly guns,
There would be no mercy, not on these cowardly bums,
They spat at us each morning, they swore at us each night,
But 'twas a famous victory, a triumph of my night,
The battered and beaten boy-friends had given into my squeeze,
All of them surrendered and went down on their knees.

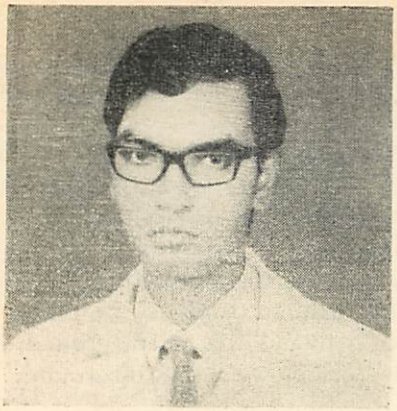
Came the day when my buddies decided I'd enjoyed enough,
"Get up and run you son of gun, or we'll make it pretty rough,"
"Get lost you bum, we're running the show," that broke my heart in two,
It took sometimes before I realized, that for the moment I was through,
I lost all my ladies fair, I lost all my pride,
And just when the time was ripe for me to take a bride,
After touching the heights of glory, I sank to the depths of shame,
Where for heaven's sake was my name, fame or dame,
They look at me as I walk alone, head bent and eyes on the ground,
"So long creep," they shout and say, "Hope we'll see you around."

Love Is A Many Splendoured Thing

Fauzia Quddus

Final Year M.B.,B.S.

LOVE is a many splendoured thing,
Like April blossoms on cherry trees in spring,
Soft magic notes of nightingales which nights' darkness brings,
Love is a many splendoured thing.
A silent speaking glance, perhaps by mere chance,
Making eyes light up and hearts crazily dance;
Togetherness felt even when staring into space,
At picturesque valleys and splendid sunsets gaze—
Love is a many splendoured thing.
Turning around as free as the wind,
Forever more then two souls could sing
Love is a many splendoured thing.
Dew drops dripping from thin blades of grass
As sunbeams frolic, tease and pass
High and the heavens are all alight
With God's graciousness and His love so bright;
Love is a many splendoured thing.
As rainbows after a drizzle across the heavens swing,
And dreams have run wild with wings—
Yes,
True Love Is
A Many Splendoured Thing!



ALCOHOL

Mohammad

III Year M.B.,B.S.

The basis for the thirst for alcohol is not a physiological need arising from tissue dryness such as occurs when there is a desire for water. Alcoholism is a phsychological rather than physiological habit. Many individuals crave for alcohol not because their body demands it but because it permits them to escape from the realities of life.

Alcohol is contained in different percentage in the various alcoholic beverages such as, Whisky 40%, Beer 2-3%, Cocktail 24% etc. Drinkers, in general find that alcohol provides a tempting uplift, a feeling of relief from social and personal inhibitions and a dulling of worries and cares.

ABSORPTION: Alcohol is rapidly absorbed from the stomach and upper intestine and also through the lungs by inhalation. Rate of absorption from G.I.T. depends on:

1. Presence of food in stomach and rapidity of its emptying, Food delays absorption especially if it contains fats and proteins.

2. Strength of alcohol taken, the stronger the drink the more rapid the absorption. Maximum conc. in blood reaches within one hour.

ELIMINATION: The amount of alcohol eliminated depends on the amount consumed, but as high as 10% may be excreted in the urine while remaining is oxidised in the liver. Oxidation in the tissues is slow and hence repeated dosage at short intervals is likely to cause cumulation and intoxication. On combustion, 1G of alcohol yields 7 Calories and it can be used to supplement the carbohydrate and fat of food, thus tending to spare the body proteins. The use of dilute alcoholic beverages over a period of years often leads to obesity because weak alcohol supplements the ordinary food without causing gastric irritation.

ACTIONS: Alcohol is an irregularly descending depressant of central nervous system. As an anaesthetic, alcohol occupies a place between the general anaesthetics and hypnotics. Its anaesthetic effect is longer than either but it is not employed by the medical profession because the margin between the anaesthetic and fatal dose is slim. Alcoholic coma in other words is a dangerous state.

The layman in particular, views alcoholic drinks as a stimulant. His belief arises from several sources. First, an illusory feeling of stimulation arises from the removal of inhibitory effect of the higher centres so that the activity of the lower centres is unrestrained and the individual feels released, excited and exhilerated. Second, a feeling of warmth occurs. By reducing vascular tension alcohol causes blood vessels of body surface of dilate so that they become engorged with blood and an illusory glow occurs. But radiation of heat from blood now exposed at the surface actually lowers the body temperature. It is unwise to drink alcoholic beverages during extreme cold.

Effects on Sensory Function: Alcohol depresses the sense areas of the brain so that the impulses from the sensory end organs are received more faintly or not at all according to the amount consumed. In the skin the sensations of pain, heat, cold and cough are affected. In very large doses complete loss of sense and other sensory functions occurs.

Effects on Motor Function and Co-ordination: The Motor functions of the intoxicated individual are affected even more noticeably than are his sensory functions. He walks with a staggering gait, leas agnainst a lamp post in order not to fall, vainly attempts to insert his key in the lock and talks with a thickened speech. Delicate measuring work and writing and drawing power is decreased or lost.

Effects on intellectual function: Alcohol causes a disturbance of intellectual functioning that lingers while alcohol is in the body. Continuous, immoderate use of alcohol may result in lasting impairment. There is an appreciable decrease in the scores on intelligence test involving logical relations.

GENERAL EFFECTS: The drinker develops a dry mouth. This is due to the fact that alcohol has the property of attracting water from any medium with which it comes in contact. It can even remove moisture from the air and so dilute itself. In the body it removes water from tissue and so gives rise to abnormal tissue dryness and need for water.

There is an increase of appetite as a result of small doses of alcohol. This is due to the irritant effect upon the stomach wall giving rise to sensation of hunger. Moderate use of alcohol does not shorten life but immoderate use does.

Alcoholism is of two sorts Acute and Chronic.

ACUTE ALCOHOLISM: Acute alcoholic intoxication occurs when the drinker has consumed alcohol in a large enough quantities.

SYMPTOMS: At first the sense of well being, self confidence and exhilaration, flushing of skin and face, gradual loss of self control, garrulousness, argumentativeness, rude behaviour, sentimentality and moroseness or melancholia. These are followed by confusion of ideas, muscular incoordination, staggering gait, slurred and incoherent speech, blurred vision and stupor. After a time recovery may occur, accompanied by nausea and vomiting, may be followed by sleep and severe headache. If recovery does not occur the unconsciousness and coma with slow sterterous breathing and a full rapid pulse. The pupils are generally dilated. The temperature becomes subnormal. Death usually occurs from asphyxia due to respiratory paralysis.

TREATMENT:

1) If symptoms are severe give emetics if stomach is full.
2) Stomach wash with warm water or sodabicarb.
3) If necessary give 1000 c.c. of dextrose saline with 15 units of insulin.
4) Give 200 mg. of Vitamin B1, 200 mg. of Niacinamide and 1000 mg. of Vitamin C.
5) Apply cold to head, and warmth to body.
6) Give tea or strong coffee.
7) Wash colon with saline.
8) Give stimulants, oxygen and carbon dioxide inhalations and artificial respiration if required.

CHRONIC ALCOHOLISM: Habitual drinkers for years suffer from many organic deseases.

The patient suffers from loss of appetite, nausea, vomiting specially in the morning, Purging, jaundice, tremor of the tongue and hands, loss of memory, impaired power of judgement, dropsy and general anasarca. The symptoms of peripheral neuritis and dementia supervene the last stage. Such patients generally die from coma.

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What They Think of Woman and Love

Mohd. Amin

III Year M.B.,B.S.

"Woman"

1. A beautiful and chaste woman is the perfect workmanship of God, the true glory of angels, the rare miracle of earth, and the sole wonder of the world.

HERMES

2. Next to God, we are indebted to women, first for life itself, and then for making at worth having.

BOVEE

3. Women are the poetry of the world in the same sense as the stars are the poetry of heaven. Clear, light giving, harmonious they are the terrestrial planets that rule the destinies of mankind.

HARGRAVE

4. All a woman has to do in this world is contained within the duties of a daughter, a sister, a wife, and a mother.

STEELE

5. O'Woman, you are not merely the handwork of God, but also of man; these are ever endowing you with beauty from their own hearts.... You are one-half woman and one-half dream.

RABINDRANATH TAGORE

6. O'Woman! lovely woman! Nature made thee to temper man; we had been brutes without you. Angels are painted fair, to look like you; there is in you all that we believe of heaven—amazing brightness, purity, and truth, eternal joy, and ever-lasting love.

LTWAY

7. Woman, thou hast encircle and the world's heart with the depth of thy tears as the sea has to earth.

TAGORE

Woman, when you move about in your household service, your limbs sing like a hill—stream among its pebbles.

TAGORE

"LOVE"

1. The greatest pleasure of life is love.

SIR W. TEMPLE.

2. The heart of him who truely loves is a paradise on earth; he has God in himself, for God is love.

LAMENNAIS

3. Man's love is a part of man's life, it is woman's whole existence.

BYRON

4. It is better to have loved and lost, than not to love at all.

TENNYSON

5. It is not decided that women love more than men, but it is indisputable that they love better.

DUBAY

6. Love is the most terrible, and also the most generous of the passions, it is the only one that includes in its dreams the happiness of someone, else.

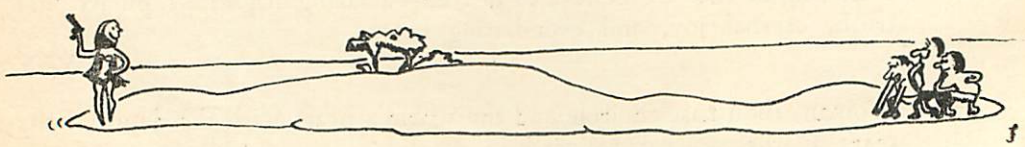
J. A. KARR.

7. Life is flower of which love is the honey.

VICTOR HUGO.

8. All expansion is life, all contraction is death. All love is expansion, all selfishness is contraction. Love is therefore the only law of life. He who loses lives, he who is selfish is dying. Therefore, love for love's sake. Because, it is the only law of life.

VIVEKANANDA



Love in Terms of Medicine

Aijazul Haque

B.Sc. III Year M.B.,B.S.

Definition: A misunderstanding between two fools.

Etiology: Many factors are concerned in the etiology of love. Hereditary factor is the one commonly blamed, but it has not been proved as yet. Prof. Majnoon experimented a lot on this factor and concluded that many other factors were also concerned, in the etiology of love. A racial factor is also incriminated thus the disease is more common in European countries than in tropical regions.

Predisposing Factors: (1) Age—more common in young adults (2) Sex—Females predominate (3) Seasonal variations—Disease is common in spring season.

Pathology: The disease occurs in both acute and chronic forms. Cardiovascular system is primarily affected. In acute stages there is an antigen-antibody reaction resulting in generalised inflammation which gives rise clinically to burning sensation.

Heart shows fatty degeneration with areas of infarction which may rupture and give rise to a condition called "Broken Heart".

Clinical Findings: The patient is often an adult female who complains of dyspnoea and palpatation on seeing a particular boy. Restrosternal pain is common complaint. In severe cases pain in the Rt. hypochondrium commonly known as "Dard-e-Jigar" is present.

On Examination: Complexion is pale in chronic cases but in acute cases a malar flush is always present. Eyes are sunken, Hair is dry and the mucous membrane of the mouth is pink. Apex beat is not palpable in most of the cases pulse is irregular and tachycardia is present shortly after the acute attack. On X-ray examination, opacity due to heart is absent and on auscultation both heart sounds are inaudible. Blood pressure is often raised. Patient is euphoric in early stages and depressed later on.

Differential Diagnosis: It is difficult to make a correct diagnosis in early stages. Love may be mistaken for acute Rheumatic lesions. Diagnosis is established by suggestive history and absence of heart in X-ray.

Course and Complications: Course is usually prolonged unless adequately treated. Fatal results are rare. Complications include suicide and sometimes patients have even committed murders. Relapses of love may occur.

Prognosis: In acute stage prognosis is usually good and patient recovers within a few weeks. Chronic cases show bad prognosis.

Treatment

Prophylactic :— Young adults should be carefully looked after. A complete knowledge of their daily activities is essential for parents. Too many movies should be prohibited and romantic literature should be disallowed for teenagers.

Curative—Patient should be asked to meet the father of the beloved. Next, isolation of the patient must be carried out as the disease is infectious. Symptomatic treatment consist in prescribing Tranquilizers and Hypotensive drugs.

Patient should be encouraged to resume the activities of life as in the past. Replacement therapy may be of help by advising patient to get married as soon as possible.

A SPARROW CRIES

Zubair Farooq

First Year M.B.,B.S.

O pretty sparrows how you fly
Flapping your wings in the sky,
Why do you roam just all alone,
Why do you squeak, Why do you moan?

Is it because you've lost your friend,
Or lost your comrades in the sand,
Or have you lost your way to home,
That's why so late have you to roam.

Or you are simply disgusted with life,
You do not think worthy to win this strife,
Or have you lost everything you had,
That's the reason why you are sad.

Or is it some very deep worry,
Which does not help to be merry,
Or is it something you covet for,
Which you cannot gain this very hour.

Or is it you are in a strange land,
Where there's no familiar way or band,
To guide you as you move around,
From one ground to another ground.

Or is it some very deep sorrow,
Something unbearable for morrow,
Or is it the cry of the sea below,
That makes you two weep so.

Instantly one sparrow fell to the ground,
Not even making a slight sound,
Whilst the other rose high up the air,
With deep courage wonderous care.

The air itself helped it to go up,
High, higher up and up,
Whilst the very wind pushed the other down,
Low, lower down and down.

So be it any hardship or sorrow,
Whether it be today or to-morrow,
Never lose to the situation,
Always have a bright vision.

For those who will give way easy,
Are crushed more by those who see,
And those who struggle to the end,
Are helped to struggle by their band.

Greetings

Mohammad Iqbal

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

I hail thee dear, dearest mine,
Frolics thine are all sublime.
Thy pompous gait to eager eyes,
Is Godly grave of unique device.
My gazing at thy charming face,
Gives my mind a great solace.
Seeking round it seems to me,
None sober-minded just like thee.
I dare not praise thee face to face,
But slide by thee in hasty pace.
So modest thing that I can do,
Post my greetings pure and true.
Wish thee healthy, wealthy too,
May ye prosper through and through.

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"Kites rise highest against the wind not with it."

Churchill

"Praise like Gold and Silver owes its value to scarity".

Samuel Johnson

"A good woman is like a good book-entertaining, inspiring, instructive; sometimes a bit too wordy, but when properly bound and decorated, Irresistible. I wish, I could afford a library."

Marcus Long

"Look not mournfully into the past, it comes not again.
Wisely improve the present—It is thine.
Go forth to meet the shadowy future
without fear and with a manly heart."

"A family is a unit composed not only of children, but of men, women, an occasional animal and the common cold."

Ogden Nash

"Liberty will not descend to a people. A people must raise themselves to liberty. It is a blessing that must be earned before it can be enjoyed."

"The glory of great men should always be measured by the means which they have used to acquire it."

La Rochefaucauld

"An argument is the longest distance between two points of view."

Dan Bennett

"FROM THE 'MEDICINE'S FORGOTTEN MAN' "

Dear Dr. Santopietro

I think I have got a small cavity in one of my teeth. Please try to keep your bill the same size.

Dear Dr. Gray.

I am deeply concerned about the three months pregnancy of my intended wife.

Dear Dr. Howe

I have examined the flat tire you left here today and I diagnose the trouble as puncture wounds resulting in prolapses of the perimeter. Major surgery followed by the administration of violent flatulence is the prescribed cure.

John R.
Chief Mechanic.

Dear Doctor,

My husband is against me coming in for X-ray, as he thinks I am being ultraviolated.

Salie T——

Dear Dr. Behan

You told my husband to take a vacation. What would you suggest? Last year we took a cruise around the world. This year we want to go somewhere else.

Mrs. George——

Dear Dr. Preston

I have insomnia, should I go home and sleep it off?

Rut ledge-N——

Dear Miss March

I was wondering why the dream that you had that you were walking down Park Avenue, stark naked with your hat on, upset you so much.

Ivar Johnson MD.

Dear Dr. Johnson

I was wearing my last year's hat.

Marcella Marsh

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