❖ **Heat stroke:** (*Heat hyperpyrexia*)

- It is characterized by absence of sweating and increase of body temperature above 41°C (106°F) and neurological disturbances, such as psychosis, delirium, stupor, coma and convulsions.
- High temperature and increased humidity are two principal factors in its initiation. When there is 100% humidity, a temperature of 32°C in the environment may lead to heat stroke.
- In heart stroke, failure of cutaneous blood flow and failure of sweating lead to a breakdown of the heat regulating centre in the hypothalamus. It occurs -
  - In young persons exposed to high temperature while undergoing severe exertion &
  - In old persons usually over 60 years during heat waves.

Effects of bomb blast explosion: A bomb is a container filled with an explosive mixture and missiles, which is fired either by detonator or a fuse. An explosion can injure a person in the following ways:

1) **Disruptive effects:**
   - If the victim is almost in contact with a large bomb, he may be blown into pieces; e.g. when the victim is carrying it. The pieces can be scattered over an area of 200 meter radius.

- A bomb exploding on the ground may cause **severe damage or traumatic amputation of the lower legs.**
- A bomb which explodes when the victim is bending over it may cause severe damage to arms, face and front of the chest.
- When the victim is a few meters away or with smaller explosion, disruption is usually limited to mutilation of a localized area.

2) **Effect of flying missiles (splinters):** Splinters from the bomb may strike the body of a person & cause –
   - Deep penetrating injury.
   - Injury to vital organs.
   - Haemorrhage, shock & death.

3) **Effect of air blast:** An explosion produces a shock wave which spreads concentrically from the site of explosion at about the speed of sound.
   - A shock wave can throw the victim against a wall or toss him through the air causing blunt force injuries.
   - **Blast lung:** Death may result from blast lung.
   - **Underwater blast:** When the explosion is in the water, the pressure changes are called underwater blast. The physical changes are similar to those of the explosion in air.

4) **Burns:** The fire caused due to explosion may set ablaze the clothings of a nearby victim and may cause extensive burn injury.

5) **Falling masonry:** A powerful bomb explosion may cause collapse of a house wall or similar structure and the person may die of traumatic asphyxia.

6) **Fumes:** Explosion inside a closed apartment may cause the entrapped victims, poisoning with CO, present in the smoke.

[Ref- Reddy / 34th / 225-227 + Nandy / 3rd / 421]

Q. Define cadaveric spasm [CU-10J] / instantaneous rigor.

Answer

Cadaveric spasm / instantaneous rigor / cataleptic rigidity:

It is a rare condition in which, the muscles that were contracted during life become stiff and rigid immediately after death, without passing into the stage of primary relaxation.

[Ref- Reddy / 34th / 154]

Causes: It occurs especially in cases of-

1) Sudden death.
2) Excitement.
3) Fear.
4) Severe pain.
5) Exhaustion.
6) Cerebral haemorrhage.
7) Injury to the nervous system.
8) Firearm wound of the head.
9) Convulsant poisons; e.g. strychnine.

[Ref- Reddy / 34th / 154]

Q. Write a short note on: Brush burn & friction burn.

Answer

Brush burn / gravel rash:

An abrasion caused by violent lateral (tangential) rubbing against a surface as in dragging over the ground, is called brush burn. It is scrapping injury over a large area.

Friction burn / scuff or brush abrasion:

It is an extensive, superficial, reddened excoriated area without serous ooze or bleeding and with little or no linear mark. It may occur due to tangential contact with a smooth surface or when the skin is covered by clothing

Example: Brush burns & friction burns are seen in motor cyclists, person ejected from vehicles, pedestrians, cyclists thrown forward after the primary impact from a motor vehicle.

Q. Define drug abuse.

Q. Write short note on: Drug abuse. [DU-10J]

Answer

Drug abuse:

Improper use of a therapeutic or non-therapeutic drug, which may or may not be harmful, even in absence of addiction constitutes drug abuse.

[Ref- Reddy / 34th / 562]

Or,

Drug abuse refers to use of a drug by self-medication in a manner & amount that deviates from the approved medical & social patterns in a given culture at a given time.

[Ref- Tripathi / 6th / 84]

Or,

Drug abuse implies excessive (in terms of social norms) **non-medical** or social drug use.

[Ref- Laurence / 9th / 166]

Classification of 'abused' drugs: Drugs that are abused are classified into three main groups –

1) Drugs that alter perception.
2) Drugs that stimulate the brain.
3) Drugs that depress the brain.

Examples of drug abuse: Frequently abused drugs include –

1) **Opiates:** Heroine, morphine, pethidine.
2) **Stimulants:** Cocaine, Amphetamine.
3) **Hallucinogens:** LSD, Marijuana.
4) **Depressants:** Barbiturates, chloral hydrate, paraldehyde.
5) **Miscellaneous:** Propoxyphene, Amitriptyline.

[Ref- Reddy / 34th / 562]

Q. Define carboluria. [RU-13Ju, SUST-12Ju]
Q. Write short note on: Carboluria. [DU-15Ju,10Ju, RU-18M,13J,11Ju]
Answer
Carboluria:

In case of poisoning with carbolic acid, the urine contains trace of free carbolic acid & the metabolic product of carbolic acid namely hydroquinone and pyrocatechol – as ethereal sulphates and glycuronates. This is known as carboluria.

Typical features:

When fresh, the urine may not have any change in colour or may be slightly greenish. On keeping exposed to air the metabolic products undergo further oxidation and the colour of the urine changes to deep green.

[Ref- Nandy / 3rd / 755]

Q. Write short note on: Barbiturate blister. [DU-13Ju]
Answer
Barbiturate blister:

- In a few cases (about 6%) of severe acute barbiturate poisoning, blisters (**irregular shaped erythematous patches**) may appears in the skin.
- Blisters contain clear serous fluid.
- **Site:** Commonly found in sites where pressure has been exerted between two surfaces; such as interdigital clefts, inner aspects of the knee, buttocks, back of thighs, calves & forearms. Occasionally, the entire side of a forearm or thigh is blistered.
- Irrespective of progression of the case, they do not last long. Rupture of a blister leaves a red, raw surface which later dries to a brown parchment-like area.

[Ref- Reddy / 34th / 547 + Nandy / 3rd / 855]

Q. Define traveler's poison. [SUST-17N, CU-17N,11Ju,08J]
Q. How will you diagnose it? [CU-11Ju]
Q. Give the signs & symptoms of traveler poison. [CU-17N,11Ju,10Ju]
Q. Discuss the purpose behind use & mode of administration. [CU-17N]
Answer
Traveler's poison / Road poison:

Crushed or powdered seeds or an extract is used by criminals for stupefying a victim prior to robbery, rape or kidnapping. This is called road poison.

It is usually given in food or drink; e.g. chapattis, curry, sweets, tea, liquor, etc. to travelers in railway stations, choultries, etc.

[Ref- Reddy / 34th / 557]

Functions of BMDC:

A) **Recognition & registration of medical qualifications & medical professionals:**
1) **Recognition of medical & dental qualifications** granted by medical & dental institutions in Bangladesh and also granted by **institutes outside Bangladesh.**
2) **Registration of medical & dental practitioners,** by recognizing their qualification.
3) Registration of medical assistants.
4) Withdrawal of recognition of medical & dental institutions.

B) **Administrative functions:**
1) It gives **warning notice to the medical and dental practitioners** for infamous conduct.
2) It has the **legal power to erase the registration** of a medical practitioner.
3) **Actions against use of false title & degree** by registered medical & dental practitioners.

4) Maintenance of registers of medical & dental practitioners & medical assistants.
5) Publications of list of registered medical practitioners.

C) **Academic functions:**
1) It maintains the standard of under-graduate & post-graduate medical educations (curriculum).
2) It maintains the reciprocal recognition of medical education; i.e. they correlate the standard of foreign medical education with local medical education.
3) Approval of journals published by different organization / association.

D) **Other functions:**
1) Cultural activities.
2) Visiting hostel, dinning, common room etc.
3) Sports.

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Q. Define atropinization? [RU-11J]
Q. Write short note on: Atropinization. [DU-17N,14Ju, RU-17N,16J]

Answer

Atropinization:

The **physiological conditions of being under the influence of Atropine**, is called Atropinization.

In OPC poisoning **I/V Atropine** must be continued up to Atropinization & then Atropine should be stopped, otherwise there is chance of atropine toxicity.

Signs of atropinization:
1) Dilated pupil / mydriasis.
2) Loss of light reflex.
3) Tachycardia.
4) Dry mouth.

Procedure of preparing an injury report:

The doctor is required to fill in a printed form of injury report, one copy of which is sent to the investigating police officer in a sealed cover, and the other is retained for future reference.

❖ **The following particulars should be noted:**

1) Serial number.
2) Name, age, sex & address of the injured person.
3) Father's or guardian's name
4) Date, time and place of examination.
5) Name and number of accompanying police constable and the police station to which he belongs.
6) Names of persons who had accompanied the injured person with their address.
7) A brief statement of the injured person as to how he was injured.
8) Two identification marks.
9) The size of the victim, i.e., stature, body-weight and development.
10) The consent of the person for examination should be taken. If the condition of the patient is serious, dying declaration should be recorded.

❖ **The following are the various entries in the injury report:**

1) Nature of each injury.
2) Size, shape and direction of each injury.
3) Part of the body inflicted.
4) **Severity of the injury:** Simple, grievous and / or dangerous.
5) Type of weapon inflicted.
6) If the weapon was dangerous or not.
7) Remarks.
8) Left thumb impression and/ or signature of the injured person with date.
9) Signature of the medical officer with date.

[Ref- Reddy / 34th / 276, 277]

Differences between medical certificate & medicolegal report:

Points	Medical certificate	Medicolegal report
1) Issued by	By a qualified registered medical practitioner (RMP).	Prepared by a doctor usually on the request of the investigating officer.
2) Purpose of issuing	Ill health, death, insanity, age or sex etc.	Usually in criminal cases (e.g. assault, rape, murder etc.).
3) Medicolegal importance	It is a legal document.	Reposts are not admitted as evidence, unless the doctor attends the court and testifies to the facts under oath.
4) Oath	Necessary.	Necessary,

[Ref- Reddy / 5th / 10]

	attachment.	
C) Pelvis		
1) Bony framework	Heavy, rough with prominent sites for muscular attachments.	Light with smooth surface.
2) General	Deep funnel.	Flat bowl.
3) Pelvic brim	Heart shaped.	Circular.
4) Pelvic cavity	Conical & funnel shaped.	Broad & rounded.
5) Sub-pubic angle	Acute, 'V' shaped & sharp angle (70^0-75^0).	Right angle or obtuse, 'U' shaped, rounded & broader angle (90^0-100^0).
6) Distance between two anterior-superior iliac spines	Less.	More.
7) Distance between highest points of iliac crests of two sides	Less.	More.
8) Ilium	Less vertical; curve of iliac crest reaches higher level & is more prominent.	More vertical, distance between
9) Sacrum	Longer, narrower with more evenly distributed curvature.	Shorter, wider, upper half almost straight, curves forward in lower half.
10) Greater sciatic notch	Narrow and deep.	Broad and shallow.

Traits	Male	Female
11) Sacral promontory	More ventrally projected.	Less ventrally projected.
12) Obturator foramen	Large & oval.	Small & triangular.
13) Acetabulum	**Shape:** More than $2/3^{rd}$ of a hollow sphere (i.e. large), & directed laterally.	**Shape:** Less than $2/3^{rd}$ of a hollow sphere (i.e. small), & directed antero-laterally.
14) Ischial tuberosity	Inverted.	Everted.
15) Coccyx	Less movable.	More movable.

Medicolegal importance of age in general:

A) In civil cases:

1) Identification.
2) Marriage contract.
3) Impotence & sterility.
4) Attainment of majority.
5) Eligibility for employment.

B) In criminal cases:

1) Criminal responsibility.
2) Judicial punishment.
3) Rape.
4) Kidnapping.
5) Evidence (competency as witness).
6) Infanticide.
7) Criminal abortion.

Deposition / record of evidence:

Deposition may be defined as any statement (oral or written) made by a witness on oath in a judicial preceding and signed by the witness & Magistrate.

Parts of deposition:

1) **Examination in chief / direct examination: The lawyer (Public Prosecutor) who has summoned the doctor conducts it.** Here the lawyer asks him about all the things he knows about the case. The object is to place before the court all the facts that bear on the case. At this stage **leading questions are not allowed.**

2) **Cross-examination:** It is **done by the lawyer of the opposite side.** In this stage, the lawyer of the opposite side, that is lawyer for the accused, seeks to extract from the witness, any facts that may appear to be favorable to his client. **Leading questions are therefore allowed.** The object is to weaken the evidence of the witness by showing that his details are inaccurate, conflicting, contradictory, or that his opinions are ill founded and opposed to that of well recognized authorities.

3) **Re-examination / re-direct examination:** It is done by the lawyer who conducted the examination in chief, to clarify any confusion or to correct any mistake. After cross examination, the witness may be reexamined by the lawyer who called him. The object is –
   - To clear up any doubts that may have arisen during cross examination.
   - To explain some matter in proper perspective so that undue emphasis or possible misinterpretation can be avoided.
   - **Leading questions are not allowed.**

4) **Question by the judge (Court question):** The judge may ask any question during any stage of deposition, which he feels necessary.

[Ref- Reddy / 35th / 10-1

Bite mark

Q. Write down the characteristics of human bite mark.
Q. Considering forensic investigations write down the medicolegal importance of bite marks. [BUP-22M]
Q. Write down the medicolegal importance of bite mark. [BUP-17M]
Q. Write short note on: Bite mark. [DU-20N/M]

Answer

Characteristics of human bite mark:

1) **Shape:** Semi-circular / cresentic caused by upper & lower front teeth (incisors & canines) with a gap on either side due to separation of both jaws.
2) Abrasion, bruise, laceration may be present separately or in combination.

Medicolegal importance of bite mark:

1) Identification of assailant; by determining his pattern of teeth & examining his saliva present in bite mark.
2) It helps in blood group determination by examining saliva.
3) Social status, occupation & habit of a person can be known from bite mark.
4) Presence of bite marks on breast and genital region indicates sexual offence.
5) Nature of crime.

Q. Discuss about precipitin test in case of blood stain. [DU-14Ju]
Q. Write short note on: Precipitin test. [DU-22N]

Answer

Precipitin test:

- **Principle:** When human serum is injected into an animal, the animal becomes immunized against these proteins & antibodies develop in its blood. If human serum is then brought into contact with this animal serum, the antibodies in the animal serum react with the proteins in the human serum and a visible precipitate forms. The antibodies causing this reaction are known as precipitins and the animal serum is known as antihuman precipitin serum.
- **Application of the test:** It is a specific protein test, and the reaction demonstrates the presence of albumin-like substances obtained from any part of human body. The origin of skin, flesh, bone or even secretions, such as saliva, milk and semen is determined by this test.

Differences between ante-mortem and post-mortem clot:

Points	Ante-mortem clot	Post-mortem clot
1) Colour	Yellow or grayish white.	Dark red or almost black.
2) Consistency	Firm.	Gelatinous.
3) Elasticity	Elastic.	Non-elastic.
4) Composition	Formed mainly by platelet & fibrin.	Lack of fibrin strands.
5) Dryness	Dry.	Moist.
6) Attachment to vessel wall	Attached.	Not attached.

Q. Write short note on: Surrogate birth [CU-14Ju] / **Surrogate child** [DU-16J] / **Surrogate mother** [DU-22N,18M, BUP-22M, SUST-18N] / **Surrogacy** [CMU-21N].

Answer

Surrogate mother:

A surrogate mother is a woman, who by contract agrees to bear a child for someone else. It is intended to help a couple, of whom the woman is infertile, but the male has not reproductive deficiency.

Procedure / methods:

1) Artificial insemination with the semen of the barren woman's husband is carried out in a hired woman, or,
2) Implantation of in-vitro fertilized ova at the blastocyte stage.

Medicolegal importance:

1) According to contact, a surrogate mother cannot place future claim on the guardianship of the child. But the legal position is that, her relationship with the child cannot be totally denied.
2) Question of legitimacy may arise.
3) Question of adultery may arise.

4) Question of incest may arise.

Surrogate child: A baby born as a result of surrogate pregnancy is a surrogate child.

[Ref- Reddy / 35th / 301 + Nandy / 3rd / 633 + Gautam Biswas / 5th / 385]

Precipitate labour: [DU-19M,18M, BUP-21N/M, CMU-21N/M]

Labour terminating in a very short time than that taken on average pregnant women is called precipitate labour.

Presenting features:

1) Delivery occurs suddenly and rapidly without the knowledge of the mother.
2) All the 3 stages of labour are merged into one.
3) The fetus is normal or premature.
4) It is possible in multiparae with large roomy pelvis.
5) Extremely rare in primiparae.

Complications: As the mother is not noticed in some cases, the child may die from –

1) Suffocation by falling into a lavatory pan.
2) Head injury and fracture of the skull with subdural hemorrhage often bilateral, by a fall on the hard floor.
3) Hemorrhage from the torn end of the cord.

Medicolegal importance:

1) The mother or her relatives may be accused of infanticide.
2) In a case of murder, death of the child may be attributed to precipitate labour.

[Ref- Reddy / 35th / 344]

Answer

Example of resuscitation artefact:

1) Injection mark in the cardiac region / extremities → in case of intra-venous / intra-cardiac injection.
2) Contusion & blood collection in the pericardium → in case of intra-cardiac injection.
3) Ring like contusion → due to application of defibrillation.
4) Bruise in the anterior chest wall, haemorrhage in the S/C tissue & pectoral muscles → due to CPR / external cardiac massage.
5) Damage to the mouth, palate, pharynx, larynx / perforation of oesophagus → in case of attempted laryngoscope.
6) Contusion in the face, neck & damage to the lips & inner gums → due to attempted mouth-to-mouth breathing.

[Ref- Reddy / 35th / 359]

Trait	Suicidal cut throat wound	Homicidal cut throat wound
1)Situation 2)Level 3)Number of wound 4)Hesitation cut. 5)Severity 6)Weapon	1)Left side of the neck & passing across the front of the throat.Rarely on both sides. 2)High;above the thyroid cartilage.. 3)Multiple,may be 20 to 30.superficial parallal & merged with the main wound,rarely single. 4)Present. 5)Usually less severe. 6)Usually present.	1)Usually on the sides. 2)Low;below the thyroid cartilage. 3)Multiple,cross each other at a deep level. 4)Absent 5)More severe 6)Usually absent..

Differences between rigor mortis & cadaveric spasm:

Traits	Rigor mortis	Cadaveric spasm
1) Onset	Within 1-2 hours after death.	Immediately after death.
2) Muscles involved	All muscles of the body are affected gradually.	Selected voluntary muscles, which were in a state of contraction at the time of death.
3) Primary flaccidity	Precedes R.M	Does not come in the affected muscles.
4) Intensity of rigidity/contraction	Comparatively moderate.	Comparatively very strong.
5) Death of the muscles	Molecular death of the muscles occurs.	No molecular death of the muscles.
6) Duration of stay	About 12-18 hours.	A few hours until replaced by rigor mortis.
7) Predisposing factor	Nil.	Excitement, fear, fatigue, exhaustion along with contraction of muscles during death.
8) Body temperature	Low.	Comparatively high.
9) Muscle reaction	Acidic.	Alkaline.
10) Reaction to stimulus	Does not respond.	Responds.
11) Mechanism of formation	Breakdown of ATP below critical level.	Not known exactly.
12) Medicolegal importance	Mostly helps to know the time of death.	Speaks sometimes about the cause & nature of death.

[Ref- Nandy / 3rd / 262 + Reddy / 35th / 120]

Q. Write down the criteria of an ideal mortuary? [DU-20N/M,18N]
Q. Give the picture of an ideal mortuary. [DU-16J]

Answer

Criteria of an ideal mortuary: An ideal / authorized mortuary should have following criteria & facilities.

1) Cooling facilities to preserve the dead body.
2) Good ventilation.
3) Sufficient water supply.
4) Good drainage system.
5) Instruments.
6) Modern dissection table.
7) Disinfectants.

[Ref- Nandy / 3rd / 288 + Nagesh Kumar G Rao / 1st

Q. Write short note on: Water intoxication. [DU-23J]

Answer

Water intoxication:

When deaths occur due to ingestion of large quantities of water or the administration of large quantities of intravenous (i.v.) fluids, devoid of electrolytes, is called water intoxication.

Medicolegal importance:

1) Deaths from water intoxication are **very rare.**
2) The victims are **usually psychotic.**
3) **Death occurs due to cardiac arrhythmia produced by electrolyte imbalance.**

Clinical features: Symptoms occur due to **sudden expansion of the cell water**, such as-

- **CNS:** Restlessness, weakness, convulsion and coma.
- **GIT:** Nausea, vomiting & diarrhoea.
- **Renal:** Polyuria and oliguria.
- **Electrolyte imbalance:** Hyponatraemia & hypokalaemia.
- **CVS:** Heart failure, cardiac dysrhythmias etc.
- **Muscular twitching** etc.

Post-mortem diagnosis: Post-mortem diagnosis should be based on history and **low levels of sodium and chlorides in vitreous fluid**. Potassium levels are normal or high, as it is rapidly released from the cells of the body after death, even in the vitreous.

[Ref- Reddy / 35th /

Berry aneurysm / ruptured berry aneurysm:

Berry aneurysms of the circle of Willis develop at branch points in the arterial tree associated with turbulent blood flow. Berry aneurysm can rupture into the subdural space or into cerebral hemispheres, with extension into the lateral ventricles, simulating a hypertensive intra-cerebral haemorrhage.

Size of aneurysms: Usually 3 to 8 mm.

Site of aneurysms: Usually present at the junction of:

1) Posterior cerebral arteries.
2) Posterior communicating vessels.
3) Middle cerebral arteries.
4) Anterior communicating arteries.

Clinical features:

1) Severe headache.
2) Nausea, vomiting.
3) Drowsiness, confusion, unconsciousness etc.
4) Cerebrovascular accident (CVD).
5) Papilledema.
6) Meningism.

Investigations:

1) CT scan.
2) CSF study.
3) CT angiogram.

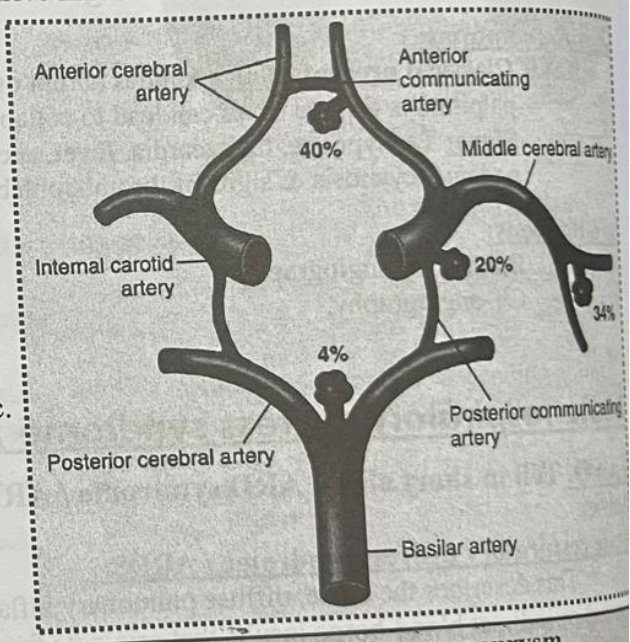

Figure: Site of Berry aneurysm.

Treatment:

1) Supportive & ABCD management.
2) Adequate nutrition.
3) Early securing of the responsible aneurysm reduces the risk of rebleed and is necessary for management of later vasospasm.
4) Endovascular treatment ('coiling') is generally preferred over craniotomy and clipping for aneurysms amenable to this approach.
5) Prevention & management of complication.

Q. Write down the complications of a wound [DU-20N/M,19M,18M, CU-19N,18N,17M, 16N].

Answer

Complications of wound / causes of death due to injury or wounds:

A) Immediate causes:

1) **Hemorrhage:** External & internal.
2) **Reflex vagal inhibition.**
3) **Shock: Neurogenic & hypovolaemic shock.**
4) **Mechanical injury to a vital organ:** Severe injury to a vital organ, such as crushing of brain, heart, lung, kidney etc. is rapidly fatal.
5) **Asphyxia:** In case of choking due to inhalation of blood in cut throat injury.
6) **Adult respiratory distress syndrome (ARDS).**

B) Delayed causes:

1) **Infection.**
2) **Thrombosis & embolism.**
3) **Thromboembolism.**
4) **Fat & air embolism.**
5) **Disseminated intravascular coagulation (DIC).**
6) **Adult respiratory distress syndrome (ARDS).**
7) **Renal failure following trauma (acute tubular necrosis / crush syndrome)**
8) Gangrene or necrosis.
9) Surgical operation.
10) Comorbid natural disease.
11) Supervening of disease from a traumatic lesion.
12) Neglect of injured person.
13) Supra-renal haemorrhage.

[Ref- Reddy / 35th / 232-23

Defence wound / defence cut:

Defense wounds are injuries sustained by a person as a result of his spontaneous reaction to protect himself when attacked.

In most occasions, sharp cutting weapons cause incised wounds.

Common sites:

- Palmer aspects of the hand.
- Dorsal aspect of the hand or posteromedial aspect of the forearm.

Types:

1) **Active defence wounds:** Caused when the victim tries to grasp the weapon.
2) **Passive defence wounds:** Caused when the victim raises the hands, arms or legs

Characteristics of defence wound:

- If the blade of the weapon is single edged, then all the wounds in fingers are to be expected in one line. If the blade of the weapon is double edged, then two parallel lines of incised wounds will be caused.
- If the weapon is a blunt one, bruises and abrasions are produced on the extensor or ulnar surfaces of the forearms, wrists, backs of the hands and knuckles.

Medicolegal importance:

1) Defense wounds indicate a homicidal attack.
2) When present, they help to assess the victim's awareness, consciousness, ability to resist, nature of attack, and the type of weapon.

[Ref- Reddy / 35th / 158 + Nandy / 3rd / 365]

Differences between suicidal, homicidal & accidental stab wounds:

Trait	Suicidal stab wounds	Homicidal stab wounds	Accidental stab wounds
1) Number	Often single.	Frequently multiple.	Usually single.
2) Site	Accessible precordial area or upper abdomen.	May be anywhere.	May be anywhere.
3) Tentative wound	May be present around the site of fatal wound.	May be present rarely, but away from the fatal wound.	Absent.
4) Clothing	Removed from injured area.	Normally not disturbed.	Not disturbed.
5) Defence wound	Absent.	Often present.	Absent.

[Ref- Reddy / 35th / 157]

Difference between bullet & pellet:

Traits	Bullet	Pellet
1) Discharge from	Rifled weapon.	Shotgun.
2) Composition	Lead & antimony.	Lead or steel.
3) Spinning / rotatory movement	Present while passing through a rifle.	Absent.

[Ref- Reddy / 35th / 162-

Differences between ante-mortem wound and post-mortem wound:

Traits	Ante-mortem wounds	Post-mortem wounds
1) Edges	Swollen, everted, retracted & wound gapes.	Edges do not gape but are closely approximated.
2) Hemorrhage	Abundant and usually arterial.	Slight or none and always venous.
3) Spouting of blood	Marks of spouting of blood from arteries.	No spouting of blood.
4) Extravasation	Deep staining of the edges & cellular tissues which is not removed by washing.	The edges & cellular tissues are not deeply stained. The staining can be removed by washing.
5) Clotting of blood	Clot in wounds and tissues are present.	No clotting or soft clot.
6) Inflammation & repair	Present.	Absent.
7) Enzyme reaction	Present.	Absent.

[Ref- Reddy / 35th / 239 + Gordon / 3rd / 21