

THE MODLE ANSWER

Question one: Choose only the incorrect statements from the following, correcting the underlined words in each of them and copy them in your answer paper : (12.5- Marks)

- 1-
- 2- Formation of a painless, cold & pseudo-crepitating swelling at the vicinity of abdominal incision following rumenotomy operation is called traumatic emphysema.
- 3-
- 4- Fibrous hygroma treated by surgical removal through an elliptical incision.
- 5-
- 6- Abrasion was considered as a sort of closed wound which usually healed under scab.
- 7-
- 8- In dry gangrene there is a line of demarcation between the dead and living tissue.
- 9-
- 10- Sharp needles (traumatic) are usually used for suturing resistant tissue such as tendons and skin.
- 11-
- 12- In Lembert suture the needle is inserted through the serosa and musculosa without penetrating the mucosa of hollow organs.
- 13-
- 14- The infection is the main cause of secondary heamorrhage where the bacterial infection leads to proteolysis of the formed thrombus.
- 15-
- 16- Pustulants is a sort of a counter irritant.
- 17-
- 18- Serous bursitis is considered as a form of acute bursitis .
- 19-
- 20- Thermo- Cauterization is considered as a physical methods for arresting of hemorrhage .
- 21-
- 22- In cases of comound fracture there is a communication between the fracture site and an open skin wound.
- 23-
- 24- Heamatoma , cyst , bursitis and / or hernia are considered as a form of the fluctuating swellings which misdiagnosed with the abscesses .
- 25-

Question Two: Enumerates the different varieties of the following surgical conditions :..... (12.5 / Mark)

a) Fracture . Fractures may be classified according to several factors which include:

* Extent of bone damage:

a- Incomplete fracture: An incomplete fracture is a fracture which does not extend to involve the whole thickness of bone. This type comprises:

- 1- Green stick fracture
- 2- Partial or splintered fracture
- 3- Fissured fracture
- 4- Deferred fracture
- 5- Star fracture

b- Complete fracture: Complete fractures are subdivided according to the following:

* Number of bone fragments:

- 1- Single fracture
- 2- Multiple (comminuted) fracture

* Presence of skin injury or soft tissue damage:

- 1- Closed or simple fracture
- 2- Open or compound fracture According to the time of wound occurrence, this type of fracture may be divided

into:

a- *Primary compound fracture*: In which the wound occurs at the time of fracture

b- *Secondary compound fracture*: In which the wound occurs after a period of the fracture time

3- *Complicated fracture*

* **The fracture can be described according to location into:**

1- *Epiphyseal*: affecting the proximal or distal epiphysis.

2- *Metaphyseal*: affecting the metaphysis (the connection between epiphysis and diaphysis).

3- *Diaphyseal*: affecting the shaft (diaphysis).

* **The fractures can be divided according to joint involvement as:**

1- *Periarticular fracture*

2- *Articular fracture (joint fracture)*

* **Direction of fracture line:**

Fractures of shaft can be further classified according to the direction of the fracture line into:

1- *Transverse fracture*

2- *Oblique fracture*

3- *Spiral fracture*

4- *Longitudinal fracture*

* **Displacement of the bone fragments:**

1- *Avulsion fracture (Distraction fracture)*

2- *Impacted fracture*

3- *Compression fracture*

4- *Depression fracture*

5- *Torsion fracture*

6- *Dentate fracture*

7- *Riding fracture (over-riding fracture)*

b) Hernias are classified according to several factors:

I- According to the cause:

1- Congenital

2- Acquired

II- According to their situation:

1- External abdominal hernias as umbilical hernia and ventral abdominal hernia.

2- Internal abdominal hernias as diaphragmatic hernia.

III- According to their anatomotopographical position:

e.g. umbilical H. (omphalocoele or exomphalos), inguinal H. (bubonocoele), scrotal H. (oscheocoele), or ventral H., Crual H., femoral H. and perineal hernia.

IV- According to type of the hernial contents:

e.g. that containing the bowel with the mesentery (enterocoele), omentum (epiplocele) and bladder (vesicocoele).

V- According to the condition of the hernial content:

1- *Reducible or mobile hernia*

2- *Irreducible hernia:*

It comprises three types:

a) *Incarcerated hernia*

b) *Strangulated hernia*

c) *Hernia with adhesion*

c) Haemorrhage is classified according to several factors :

I- According to its origin:

A) *Arterial haemorrhage*

B) *Venous haemorrhage*

C) *Capillary haemorrhage*

II- According to its location: Any of these previously mentioned types of haemorrhage may be further subdivided according to its site into:

A- External haemorrhage: It may occur from the skin as a result of wounds or from a natural orifice of the body.

Certain terms are in common use in this respect:

a- *Epistaxis*: bleeding from the nose, the blood is bright red.

b- *Haemoptysis*: blood coughed up from the lung or respiratory passage.

c- *Haematemesis*: blood vomited up from the stomach .

d- *Haematuria*: blood voided in the urine.

e- *Melaena*: blood passed per rectum.

B- Internal haemorrhage

Internal haemorrhage may be of two varieties:

1- Subcutaneous or tissue haemorrhage:

May be in the form of:

a- *Petechiae* or *petechial haemorrhage*

b- *Ecchymosis*

c- *Haematoma*

2- Deep or concealed haemorrhage:

Which occurs in the deeper tissues, internal organs or cavities of the body, Certain names are in common use, such as:

- a- Haemothorax: bleeding into pleural cavity.
- b- Haemoperitoneum: into peritoneal cavity.
- c- Haematocoele: into the tunica vaginalis of the testes.
- d- Haemarthrosis: into a joint.
- e- Haematometra: into the uterus.
- f- Haematosalpinx: into fallopian tubes.
- g- Haemorrhage into the spinal cord:
 - Haematorrhachis: extradural.
 - Haematomyelia: intradural.

III- According to its time of occurrence:

- A- Primary haemorrhage
- B- Intermediate or reactionary haemorrhage
- C- Secondary haemorrhage

d) Cysts may be classified into:

1. Epithelial cysts: It is an abnormal embryonic sac-like swelling lined by epithelium or endothelium. They are classified into several types which are:

A) *Dermoid cysts:* They are also found in different forms:

- a- simple form
- b- Compound form
- c- Follicular cysts

B) *base tongue cysts*

C) *Umbilical cysts*

D) *Traumatic epithelial cysts*

2- Retention cysts:

It may develop from obstruction of a secretory duct of a gland. These cysts are of several types which are:

A) *Atheroma*

B) *Mucous membrane cysts*

C) *Neck cysts and ranula*

3- Exudation cysts

4- Parasitic cysts

5- Degenerative cysts

Question Three: How can you deal with the following surgical conditions :..... (12.5 / Mark)

a) Compound fracture . In compound fractures there are two main facts:

- 1- It is an emergency.
- 2- The wound is contaminated.

Through the trauma, micro organisms are carried from the surrounding skin or the medium that produced or contact to the area, into the wound. These organisms remain a long the tract and on the devitalized tissue for about 6-8 hours. Later on, they adopt themselves to the new surroundings, and commence to multiply and to penetrate into the deeper tissues and lymph drainage. The stage of contamination thus passing over to the stage of infection. Therefore the first six hours constitute a period of relative safety and it is desirable to treat the wound within this time.

The treatment comprises:

- 1- A manual removal of devitalized tissues and foreign material.
- 2- Structures such as tendons, nerves and bones should be cleaned and picked free of debris rather than scarified.
- 3- Loose bone fragments which are free of periosteal attachment and contaminated should be removed.
- 4- Reducing the fracture as usual.
- 5- The fixation dressing with **a window** opposite to the wound to enable periodic observation and to receive suitable treatment.
- 6- In some cases it is well to suture the wounds before applying fixation, in others it is better to apply fixation before suturing.
- 7- Pin fixation either intra-medullary or pin splints is preferred in many cases, as it gives rigid and firm fixation.
- 8- Local and systemic antibiotics are recommended.

When the wound is kept thoroughly disinfected, sloughing of the damaged soft tissue occurs without any complications, leaving a granulating wound which cicatrizes rapidly.

A portion of the fractured bone may undergo necrosis, but when the sequestrum separates, healing ensues. When the injury is obviously irreparable, amputation is indicated.

b) Septic arthritis. Treatment of septic arthritis includes:

- 1- Apply sensitivity test then systemic course of antibiotic or sulfonamides should be administered in combination with the local treatment.
- 2- Provide for proper drainage and aspirate the contents and lavage of the joint cavity then inject intra-articularly a massive dose of antibiotics.

c) Chronic bursitis .Treatment of chronic bursitis includes :

- 1- Blistering by mercuric iodide ointment 1: 8.
- 2- Evacuation of the contents of the bursa in cystic form and injection of 25 mg hydrocortisone together with one million I.U. aqueous penicillin repeated every 5 days.

- 3- Evacuation of the bursa and injection of tincture iodine.
- 4- Evacuation of the hygroma and injection of 5% copper sulphate. After 10 days the bursa is reopened and the inner side is extirpated.
- 5- In the fibrous form the fibroma is removed surgically by means of an elliptical incision. Tranquillizers and local infiltration anaesthesia around the fibroma are enough for the operation. Enough skin must be left in order to coaptate the wound lips together without tension.
- 6- If the fibroma is pedunculated an elastic ligature at its neck prevents its blood supply and the tumour is separated in a period of 5-12 days.

d) Second degree of wound contusions.

Treatment of wound contusions of second degree (haematoma)

- 1- Cold astringent applications are useful in recent haematoma.
- 2- Hot fomentations or topical irritant (iodine ointment) and firm bandage stimulates absorption of the fluid and disappearance of the haematoma when it is small in size.
- 3- If the haematoma is large in size, evacuation of the clot through an incision at its lowest point, after 10 days must be done. Strict aseptic precaution should be adopted. After complete evacuation the lining is touched with an antiseptic solution (tr. iodine) and packed with sterile gauze (drain) for 1-2 days. Dressing is repeated daily (3-4 days) till complete healing occurs.

Question Four: Give a brief account on the following :..... (12.5 / Mark)

a) Counter opening .

If the abscess is not pointing at a dependant portion it is sometimes necessary to make another opening in the dependant portion to provide drainage. This is called a “**counter-opening**”. In order to make a counter-opening, an artery forceps may be passes through the first opening and inserted it into the bottom of the cavity. Pulging the overlying tissue and skin by the tip of the forceps, then open its jaws. Incise the skin between the two jaws, till reaching the abscess cavity then thrusting the forceps externally through the counter-opening. Afterwards a “Seton” (gauze dipped in antiseptic solution) is lied between the jaws of forceps, then close it to catch and carry the setons through the openings and its ends has been tied each other, in order to keep the openings patent. The setons is changed every day after cleaning the abscess cavity and irrigation by antiseptic solution.

b) Counter irritant.

Counter irritant in the form of rubeficients, postulants, blisters and firing. They are used for treatment of chronic inflammations.

- 1- **Rubeficients:** as turpentine oil camphor liniment or iodine ointment. These are massaged thoroughly at the inflamed area.
- 2- **Blisters:** as bin iodide of mercury blister, where the hair is clipped and the blister is massaged for 5 minutes. There are some precautions which must be undertaken before applying a blister. These precautions are:
 - a) The blister must be applied early in the morning so that the owner can notice his animal all the day.
 - b) A bandage must be applied on the blistered area when possible so that the animal cannot lick the blister.
 - c) Blisters are never applied on the medial side of the thigh to avoid inflammation of the udder in females or scrotum and penis in the males.
 - d) Blistered animals must be put in stables with soft ground to avoid fracture of one of the bones especially the third phalanx.
 - e) The animal must be tied from both sides of the mouth or a side stick or cradle can be used to prevent the animal from licking the blister.
 - f) Zinc oxide ointment or Vaseline is put under the seat of the blister in order to prevent dermatitis and skin cracks in this area.
- 3- **Pustulants:** These are in the form of setons where a piece of gauze soaked in turpentine oil is put in two or more than two openings one above the other. The setons are left in position for 14 days and then removed. The setons are made subcutaneously.
- 4- **Firing:** These are 3 types of firing:
 - A) **Line firing:** It is made in the form of lines by a firing machine heated until it become dull red. The lines should not penetrate the whole thickness of the skin. The lines may be transverse, oblique or in the form of a tree whose branches do not meet together at the same point. This type can be used at the region of the flexor tendons or on the medial aspect of the hock joint.
 - B) **Point firing:** There are two types:
 - a) Superficial point firing: This type do not penetrate the whole thickness of the skin.
 - b) Deep point firing: This type penetrates the whole thickness of the skin.
 - C) **Needle point firing:** This from is made by means of a firing machine whose end is pointed. It penetrates the whole thickness of the skin and in many cases reaches the cartilage, tendons, bones or the ligaments. It is not advisable to use this type of firing near joints or tendon sheaths in order to avoid infection to these structures.

c) Factors essential for wound healing by first intention are :

- 1- Recent wound.
- 2- Arrest of haemorrhage is essential.
- 3- The wound must be sterile.
- 4- There is no gaping in the depth of wound.
- 5- The lips of the wound must be regular. If it is irregular, it must be debrided.
- 6- Local application of antibiotics.
- 7- Coaptation of the lips by suturing.

d) Opening of an abscess in a mucous cavity .

An abscess in a mucous cavity like pharynx, rectum or vagina may be opened by one of the following:

- 1- Thrusting the finger into its thin wall.
- 2- By using a concealed knife.
- 3- By means of a trocar and canula.
- 4- By an ordinary pointed scalpel guarded or enveloped in gauze or cotton wool just up to its point to serve as a guard and control the use of the instrument.

GOOD LUCK.
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