

Unit

Wound & Healing.

wounds

A break in the continuity of the tissues is called wound.

A wound occurs when the integrity of any tissue is compromised.

e.g. when skin breaks, muscle tears or bone

Eight categories

① Abrasions

Also called scraps, they occur when the skin is rubbed away by friction against another rough surface.

Most of these are superficial and heal by epithelisation.

② Avulsions and traction

These occur when an entire structure or part of it is forcibly pulled away.

Such as loss of a permanent tooth or an ear lobe.

③ Contusions

Also called bruises these results from forceful trauma that injures an internal structures without breaking the skin. Blows to the chest, abdomen, or head with a blunt instruments (e.g. football or a fist) can cause contusions

④ Crush injuries

Crush wounds occurs when a heavy objects falls on to a person splitting the skin and shattering or tearing underlying structures. Injury to the tissue within closed fascial compartments can cause bleeding and swelling of these tissues

⑤ Cuts

Cuts are slicing wound made with a sharp instruments, leaving even edges. They may be as a minimal as a paper cut or as significant as a surgical incision

⑥ Laceration

Also called tears these are separating wounds that produce ragged edges. These are produced by sharp objects.

⑦ Missile wounds

Also called velocity wound. They are caused by an object entering the body at a high speed. Typically a bullet.

⑧ Punctures

Punctures are deep narrow wounds produced by sharp objects such as nails, knives and broken glass.

Rank and Wakefield classification of acute wound.

Divided into

tidy wounds

untidy wounds

Q) What are different types of wounds

- Tidy wound
- Untidy wound

Type	Tidy wound	untidy wound.
causes	Sharp Instruments	Crushing tearing avulsions vascular or lumen injury.
Tissue Status	No devitalization tissues	contain devitalized tissue
closure	Primary closure with primary healing	wound excision + Primary closure or delayed closure with healing by second intention common.
Fractures	Not common	Second Intention Common.
Tendons arteries nerves	usually injured.	May be Exposed Injured but not divided.

Wound Dehiscence

wound dehiscence is a disruption of any or all the layers in the wound.

Wound Healing:

① What are different phases of normal wound healing.

Healing is a natural process and it occurs in 3 phases

- ① Inflammatory phase
- ② Proliferative phase
- ③ Maturation phase

Types ① Give different types of wound healing

- Primary closure: Healing by first intention
- Secondary closure (Healing by Secondary Intention)
- Tertiary closure (Healing by third intention)

Detail for these types see from dogar

② Define wound healing.

wound healing refers to body's replacement of destroyed tissue by living tissue.

Can be achieved by 2 process

- ① Tissue Regeneration
- ② Scar formation

⑤ What are the factors that inhibit wound healing.

Factors that Inhibit wound

Healing

mnemonic

DIDN'T HEAL

- Diabetes
- Infection
- Drugs
- Nutritional problem
- Tissue Necrosis
- Hypoxia
- Excessive tension on wound edges
- Another wound.
- Low temperature.

⑤ What are factors that influence the wound healing.

wound Excision

Is a removal of devitalized and contaminated tissues while preserving critical structures followed by copious irrigation.

wound debridement

Debridement comes from the french unbridling or letting loose. It refers to concept of releasing pus and relieving the pressure.

Complications of non healing wounds include following.

- ① Amyloidosis
- ② Bacteraemia.
- ③ Cellulitis
- ④ Endocarditis
- ⑤ Maggot Infestation
- ⑥ Osteomyelitis
- ⑦ Pseudo aneurysm
- ⑧ Sinus tract of abscess
- ⑨ Squamous cell carcinoma.

⑩ Explain management of wound.

Management of acute wound.

① Acute wounds such as surgical incision (tidy wound) which are given under strict antiseptic measures can be closed immediately by using suture material or by adhesive tape.

② All untidy wounds should first be converted into tidy one after that they can be closed primarily or can allowed healed by second intention.

③ Head and neck areas has rich blood supply and wounds of these area can be closed primarily even if they present after 6 hours (up to 24 hours)

④ Tetanus prophylaxis schedule should be practiced.

⑤ Analgesics and antibiotics

⑥ Factors which impair wound healing should be optimized.

Keloids

The Keloid is defined as an abnormal scar that grows beyond the boundaries of original site of skin injury.

Symptoms

Pain

Pruritis

Restriction of movement.

Q) What are the difference b/w hypertrophic and keloid scar;

Features

Hypertrophic
Scar

Keloid

1

Etiology

Related to

unknown

2

Genetic

No familial
predisposition

May be
familial

3

Race

No relation

Black & white

4

Age

children

(10-30 yrs)

5

Sex

Female = Male

Female & Male

6

Borders

Remains

outgrowth wound

7

within wound.

area.

Site

Flexor

Sternum

Surfaces

Shoulder face

Q) Briefly describe principles of chemoprophylaxis in clean/contaminated wound with Ex.

⑨ Treatment option of Keloid Scar

Management

① Prevention

Careful planning in those wounds which are prone to develop hypertrophic scar.

② Decrease tension on wound.

③ Incision is made along skin crease

④ Careful selection of suture material

⑤ Minimize tissue hypoxia

⑥ Minimize source of postoperative infection.

Treatment

① Compression garments

② Silicon gel Sheets and cream

③ Corticosteroids (Intralesional injection)

④ Surgical revision of scars

⑤ Radiation Therapy

⑥ Laser therapy

Diagnosis

(11)

Q. NO. 1

→ Primary intention. (Primary closure)

A young boy sustained long linear cut at his forearm with a broken glass. on Examination it is muscle deep clean wound which is sutured in two layer

- (a) What type of wound healing. Primary closure (First Intention)
- (b) Give other types of wound healing.

Q. No. 2

(a) What is the difference between Keloid and Hypertrophic scar

(b) Enumerate different treatment for Keloid scars

Q. NO. 3

(a) Define wound healing.

(b) Enumerate Different type of wound healing.

Factors

(c) Factors Inhibit wound healing.

Q. NO. 4

(a) What are different types of wound.

(b) Discuss in detail management of acute wound.

Q. No. 5

- (a) Define wound How will you classify
- (b) Describe management of acute wound.

Q. No. 6

Difference b/w Hypertrophic and Keloid Scar

Q. No. 7

Short note on

- (a) Healing by Secondary Intention
- (b) Different phases of normal wound healing.

Healing by Secondary Intention.

- Wound left open.
- Heals by granulations contraction and epithelization.
- Increase inflammation and proliferation
Poor Scar.

e.g. Motor like accident, fighting wound