🖶 Ulcer

1. An ulcer is a discontinuity or break in a bodily membrane that impedes normal function of the affected organ.

Aetiology

- ▶ Venous Disease (Varicose Veins)
- Arterial Disease ; Large vessel (Atherosclerosis) or Small vessel (Diabetes)
- ► Arteritis : Autoimmune (Rheumatoid Arthritis, Lupus)
- **▶** Trauma
- ► Chronic Infection : TB/Syphilis
- ▶ Neoplastic : Squamous or BCC, Sarcoma

2.

Wagner's Grading of ulcers

- Grade 0 Preulcerative lesion/healed ulcer
- Grade 1 Superficial ulcer
- Grade 2 Ulcer deeper to Subcutaneous tissue exposing soft tissue or bone
- Grade 3 Abscess formation or osteomyelitis
- Grade 4 Gangrene of part of tissues/limb/foot
- Grade 5 Gangrene of entire one area/foot

3.

Classification of Ulcer:

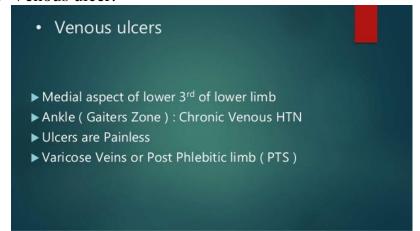


- Non-specific:
 - 1. Traumatic ulcer: acute, superficial, painful
 - 2. Arterial ulcer:
 - Arterial Ulcer
 Caused due to peripheral vascular disease
 LL: Atherosclerosis & TAO
 UL: Cervical Rib, Raynauds
 Chief complaint: Severe Pain
 Toes, Feet, Legs & UL Digits

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3. Venous ulcer:



- 4. Neurogenic ulcer:
- 5. Infective ulcer
- 6. Diabetic ulcer:
 - It may be caused due to
 Diabetic Neuropathy
 Diabetic Microangiopathy
 Increased Glucose: Increased Infection
 Foot (Plantar), Leg, Back, Scrotum, Perineum
 Ischemia, Septicemia, Osteomyelitis,

7. Tropical ulcer:

- Trophic Ulcer
 Pressure Sore or Decubitus Ulcer
 Punched out edge with slough on the floor
 Ex: Bed Sores & Perforating ulcers
 Develop as a result of Prolonged Pressure
 Sites: Ischial Tuberosity > Greater Trochanter > Sacrum > Heel > Malleolus > Occiput
- 8. cryopathic ulcer
- 9. Martorell's ulcer
- 10.Bazin's ulcer

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- Specific:
 - 1. Tuberculosis.
 - 2. Syphilis.
 - 3. Actinomycosis.
 - 4. Meleney's ulcer
 - 5. Soft sore.
- Malignant:
 - 1. Squamous cell Ca.
 - 2. Basal cell Ca
 - 3. Malignant melanoma.



INVESTIGATIONS FOR AN ULCER

Study of discharge:

- Culture and sensitivity, AFB study,
- · cytology.

Wedge biopsy:

- Biopsy is taken from the edge because edge contains multiplying cells.
- · Usually two biopsies are taken.
- Biopsy taken from the centre may be inadequate because of central necrosis
- X-ray of the part to look for periostitis/osteomyelitis.
- · FNAC of the lymph node.
- Chest X-ray, Mantoux test in suspected case of tuberculous ulcer.
- Haemoglobin, ESR, total WBC count, serum protein estimation (albumin).

MANAGEMENT OF AN ULCER

- · Cause should be found and treated.
- Correction of the anaemia, deficiencies like of protein and vitamins.
- Proper investigation as needed.
- · Transfusion of the blood if required.
- Control the pain and infection.
- Rest, immobilization, elevation, avoidance of repeated trauma.

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- Care of the ulcer by debridement, ulcer cleaning and dressing.
- Desloughing is done either mechanically or chemically. Mechanically it is done using scissor by excising the slough.
- Hydrogen peroxide which releases nascent oxygen is used as chemical agent.
- Acriflavine is antiseptic and irritant and so desloughs the area and promotes granulation tissue formation.

- Eusol (Edinburgh University Solution) which contains sodium hypochlorite releases nascent chlorine which forms a water soluble complex with slough to dissolve it.
- Use of povidone iodine in ulcer cleaning is controversial (open wound is not suitable; it is mainly for cleaning the surgical field prior to incision).

- Maggots if present in the wound will cause crawling sensation and are removed using turpentine solution.
- Removal of the exuberant granulation tissue is also required when present.
- Ulcer cleaning and dressing is done daily or twice daily or once in 2-3 days depending on the type of ulcer and type of dressing used.

- Normal saline is ideal for ulcer cleaning.
- Various dressings are available.
- Films (opsite/semipermeable polyurethane), hydrocolloids (duoderm), hydrogels (polyethylene oxide with water), hydroactives (nonpectin-based polyurethane matrix), foams.

Causes of formation of chronic/nonhealing ulcer

Local causes:

- · Recurrent infection
- Trauma, presence of foreign body or sequestrum
- Absence of rest and immobilization
- Poor blood supply, hypoxia
- · Oedema of the part
- Loss of sensation
- Periostitis or osteomyelitis of the underlying bone
- Fibrosis of the surrounding soft tissues
- Lymphatic diseases

General/Specific causes:

- Anaemía, hypoproteinaemía
- Vitamin deficiencies
- Tuberculosis, leprosy
- Diabetes mellitus, hypertension
- Chronic liver or kidney diseases
- Steroid therapy locally or systemically
- · Cytotoxic chemotherapy or radiotherapy
- Malignancy