

ULCER, SINUS & FISTULA

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SENIOR REGISTRAR SURGERY

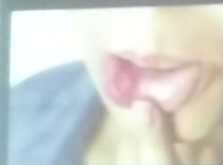


ULCER

- ▶ A break in the epithelial continuity
- ▶ Discontinuity of the skin or mucous membrane which occurs due to the microscopic death of the tissues

Aetiology

- ▶ Venous
- ▶ Arterial Disease
- ▶ Autoimmune
- ▶ Trauma
- ▶ Neoplastic



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

Classification

- ▶ A. Clinical
- ▶ B. Pathological

A. Clinical

- ▶ Spreading : (Edge - Inflamed & Edematous)
- ▶ Healing : (Edge is sloping with healthy red granulation tissue & serous discharge)
- ▶ Callous : (Floor contains pale unhealthy granulation tissue with indurated edge)

B.Pathological

- ▶ 1. Nonspecific
- ▶ 2. Specific
- ▶ 3. Malignant

Non specific Ulcers

- ▶ Traumatic Ulcer
- ▶ Arterial Ulcer
- ▶ Venous Ulcer
- ▶ Infective Ulcer
- ▶ Diabetic Ulcer

Examination

- ▶ Inspection
- ▶ Palpation
- ▶ Examination of lymph nodes
- ▶ Vascular insufficiency
- ▶ Nerve lesions

LOCATION OF THE ULCER

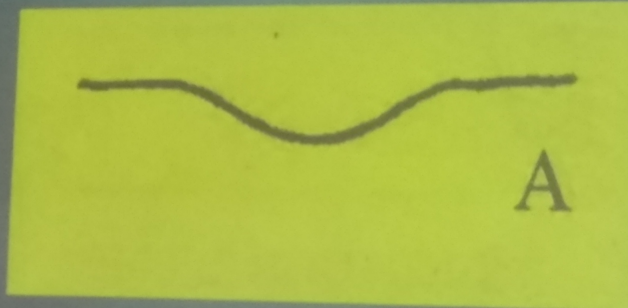
Arterial ulcer	Tip of the toes, dorsum of The foot
Long saphenous varicosity With ulcer	Medial side of the leg.
Short saphenous varicosity With ulcer	Lateral side of the leg.
Perforating ulcers	Over the sole at pressure points.
Non-healing ulcer	Over the shin

ULCER DISCHARGE AND ITS SIGN

Serous discharge	Healing ulcer
Purulent discharge	Spreading ulcer
Bloody discharge	Malignant ulcer
Discharge with bony spicules	Osteomyelitis
Greenish discharge	Pseudomonas infection

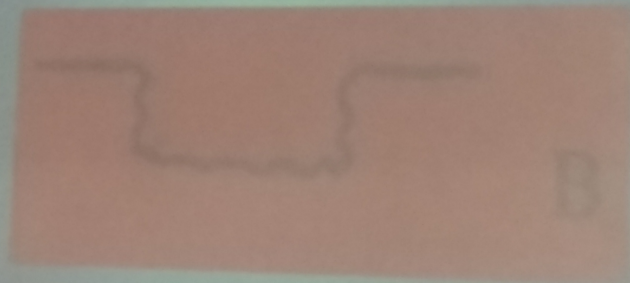
A. Sloping edge

All healing ulcers like
traumatic ulcers, venous
Ulcers



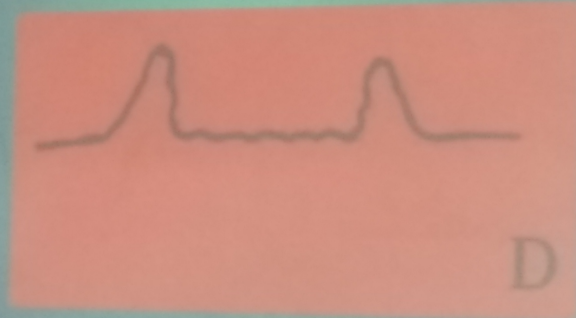
**B. Punched out
edge**

**Gummatous
ulcers and trophic
ulcers.**



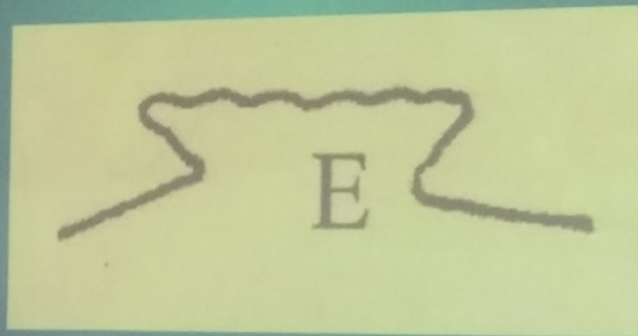
**D. Raised edge
(beaded edge)**

**Rodent ulcers or
basal cell
carcinoma .**



E. Everted edge
(Rolled out)

Squamous cell
carcinoma.



Surrounding Area

Thickened pigmented	Varicose ulcer
Thin and dark	Arterial ulcer
Red and oedematous	Spreading ulcers Like diabetic ulcer

MANAGEMENT



Zong

8:39 AM

46%

Today

8:38 AM

Edit

C. Undermined
edge

Tuberculous
ulcers



C

Undermined edge Tuberculous ulcer

Investigations

- 1) **Complete blood count**: Hb, TLC, ESR
- 2) **Urine** and blood examination to rule out diabetes
- 3) **Chest X-ray** - PA. view to rule out P.TB
- 4) **Pus** for culture/sensitivity
- 5) **Lower limb angiography** in cases of arterial disease
- 6) **X-ray of the foot** to see for Osteomyelitis
- 7) **Biopsy**: Non-healing/malignant ulcers

Treatment

- ▶ Address cause
- ▶ Control pain, infection
- ▶ Debridement, dressing
- ▶ Closure of defect

DEFINITION

SINUS:

- Blind track lined by granulation tissue leading from epithelial surface down into the tissues.



CAUSES

CONGENITAL

Pre-auricular sinus

ACQUIRED

TB sinus

Pilonidal sinus

Actinomycosis

FISTULA:

- ABNORMAL communication between lumen of one viscus and lumen of another (INTERNAL FISTULA)
(or)
between lumen of one hollow viscus to the exterior (EXTERNAL FISTULA)
(or)
between any two vessels

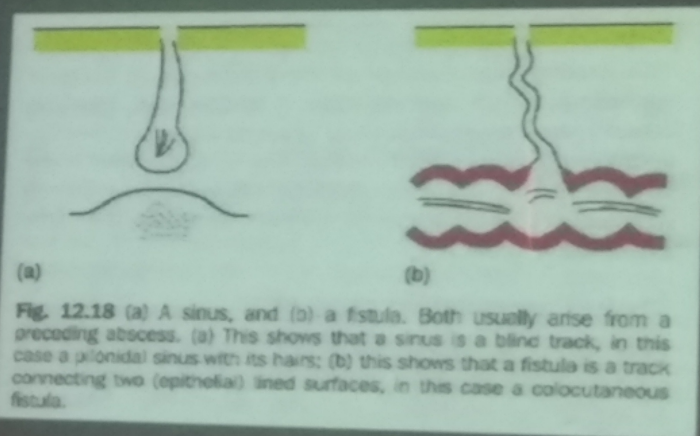
CAUSES

CONGENITAL

- Branchial fistula
- Tracheo-esophageal
- Umbilical
- Congenital AV fistula
- Thyroglossal fistula

ACQUIRED

- **Traumatic**
- **Inflammatory**
- **Malignancy**
- **Iatrogenic**



FISTULA

EXTERNAL

- Orocutaneous
- Enterocutaneous
- Appendicular
- Thyroglossal
- Branchial

INTERNAL

- Tracheo-esophageal
- Colovesical
- Rectovesical
- AVF
- Cholecystoduodenal

CLINICAL FEATURES

Usually asymptomatic but when infected manifest as-

- Recurrent/ persistent discharge.
- Pain.
- Constitutional symptoms if any deep seated origin.

TREATMENT

BASIC PRINCIPLES:

- Antibiotics
- Adequate rest
- Adequate excision
- Adequate drainage.



After excision specimen **should** be sent for HPE.

- Treating the cause.
 - e.g., ATT for TB sinus.
 - removal of any foreign body.

