



ULCER, Sinus and Fistula

THIRD STAGE

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Objectives:

1. Clear identifications of Ulcer, fistula or sinus is important
2. Proper management of them is mandatory
3. Known causes of non healed fistulas should be identified and managed

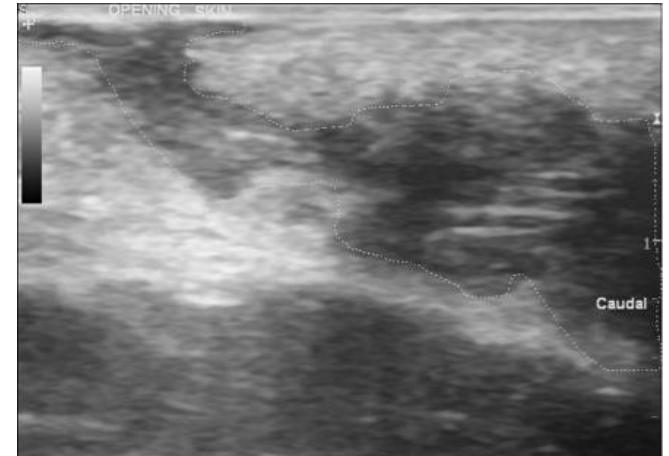
Case scenario

Q- 34-year-old male presented with this lesion over the chin that is diagnosed to be non communicated to underlying viscera even by U/S as shown by the next pictures.

- What is the most likely diagnosis?
- What is the lines if treatment?
- Name the most acceptable theory behind that



Figure 1. Preoperative photograph revealing a



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Ulcer Definition

A break in the epithelial or endothelial continuity with tissue loss.

Discontinuity of the skin or mucous membrane which occurs due to the microscopic death of the tissues



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



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



1. Non specific

Traumatic Ulcer

Arterial Ulcer

Venous Ulcer

Neurogenic Ulcer

Infective Ulcer



Traumatic ulcer

1. Mechanical- Dental ulcer on tongue (jagged tooth)
2. Physical- Electrical burn
3. Chemical- Application of caustics

Acute, Superficial, Painful, Tender



Arterial Ulcer

- Caused due to peripheral vascular disease
- LL : Atherosclerosis & TAO
- UL : Cervical Rib, Raynaud's
- Chief complaint : Severe Pain
- Toes, Feet, Legs & UL Digits



Venous ulcers

Medial aspect of lower 3rd of lower limb

Ankle (Gaiters Zone) : Chronic Venous HTN

Ulcers are Painless

Varicose Veins or Post Phlebitic limb (PTS)



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



Tropical ulcer

Tropical regions : Africa, India, S.America

Trauma or Insect Bite

Fusobacterium Fusiformis & *Borrelia Vincentii*

Abrasions, Redness, Papules & Pustules

Severe Pain



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,



2. Specific

Tuberculosis

Syphilis

Actinomycosis

Meleney's ulcer

Soft sore



3. Malignant

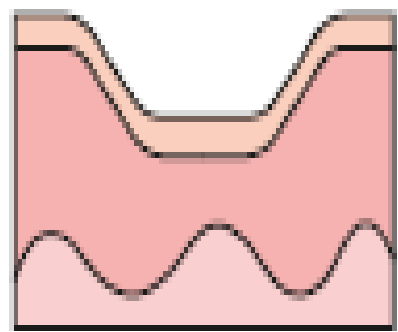
Squamous cell ca

Basal cell ca

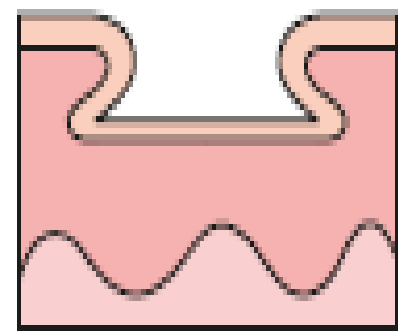
Malignant melanoma



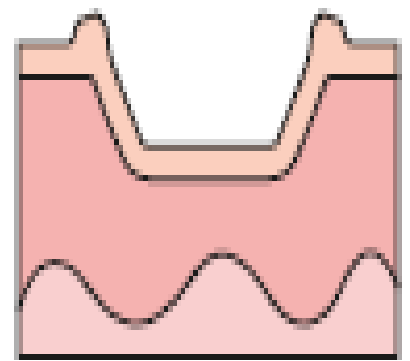




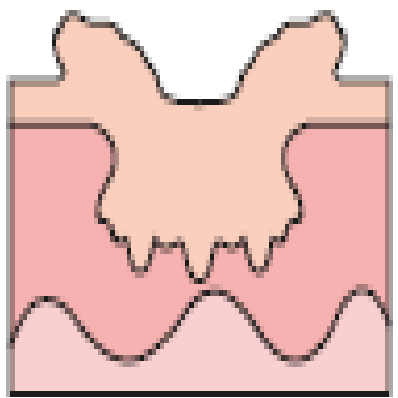
(a)



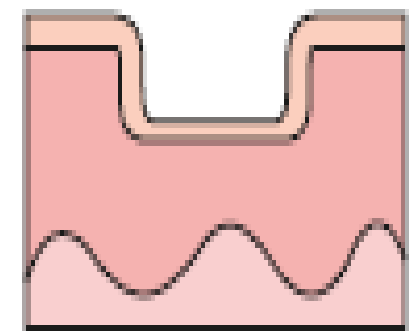
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(c)



(d)



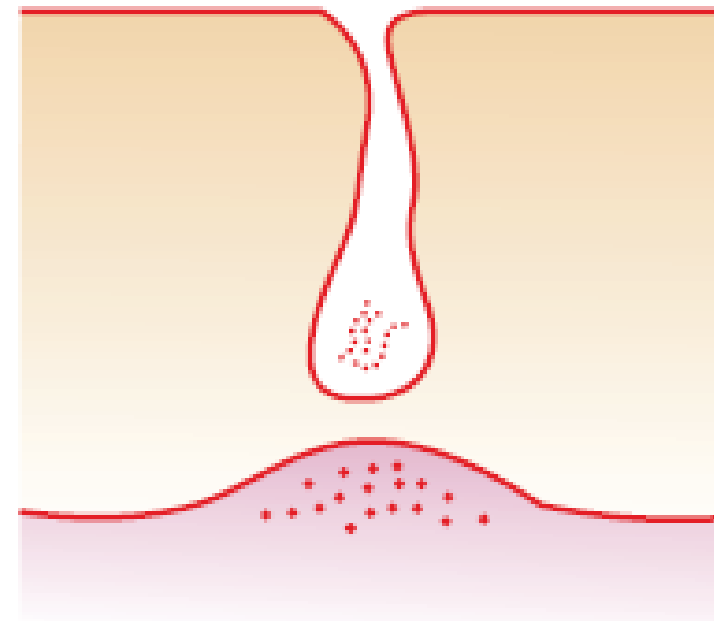
(e)



Sinus

DEFINITION

A sinus is a blind-ending tract connecting a cavity lined with granulation tissue (often an abscess cavity) to an epithelial surface





CAUSES

CONGENITAL

arise from the remnants of persistent embryonic ducts.

AQUIRED

A retained foreign body (ingrown hair or suture material)

Chronic infection (tuberculosis, osteomyelitis or actinomycosis)

Chronic inflammation (Crohn's disease)

Malignancy

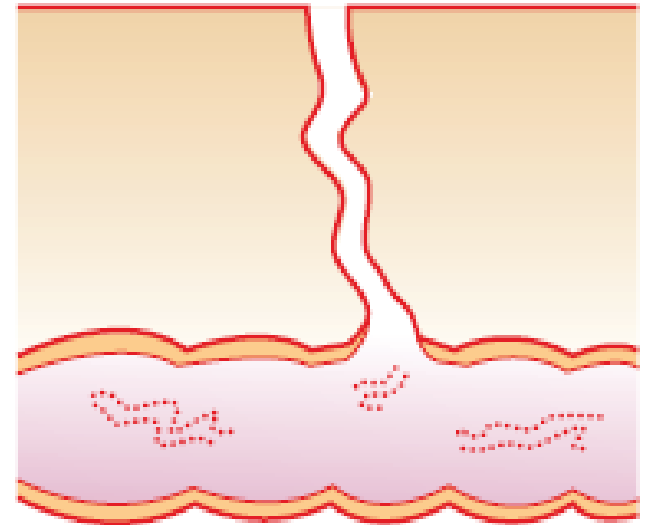
Inadequate surgical drainage of the cavity.



Fistula

A fistula is an abnormal communication between two epithelial-lined surfaces

This communication or tract may
Be lined by granulation tissue,
but may become epithelialised in
Chronic cases.





Causes

CONGENITAL

Brancheal , tracheoesophageal, thyroglossal

ACQUIRED

I. TRAUMATIC:

(A) following surgery : eg., intestinal fistulas
(faecal,biliary,pancreatic)

(B) following instrumental delivery (or) difficult labour
e.g., vesicovaginal,rectovaginal, ureterovaginal fistula



Other causes

II. INFLAMMATORY:

Intestinal actinomycosis, TB

III. MALIGNANCY:

when growth of one organ penetrates into the nearby organ.

e.g., Rectovesical fistula in carcinoma rectum

IV. IATROGENIC:

Cimino fistula- AVF for hemodialysis

ECK fistula- to treat esophageal varices in portal HTN



Principles of management

Rehydration

Antibiotics Administration

Anemia Treatment

Electrolyte repletion

Drainage of Abscess

Nutritional Support

Control of fistula drainage

Skin Protection



Causes for persistence of sinus (or) fistula

Presence of a foreign body. e.g., suture material

Presence of necrotic tissue underneath.
e.g., sequestrum

Insufficient (or) non-dependent drainage. e.g., TB sinus

Distal obstruction. e.g., faecal (or) biliary fistula

Persistent drainage like urine/faeces/CSF

Lack of rest

Epithelialization (or) endotheliasation of the track.
e.g., AVF



Other class.

Malignancy.

Dense fibrosis

Irradiation

Malnutrition

Specific causes. e.g., TB, actinomycosis

Ischemia

Drugs. e.g., steroids

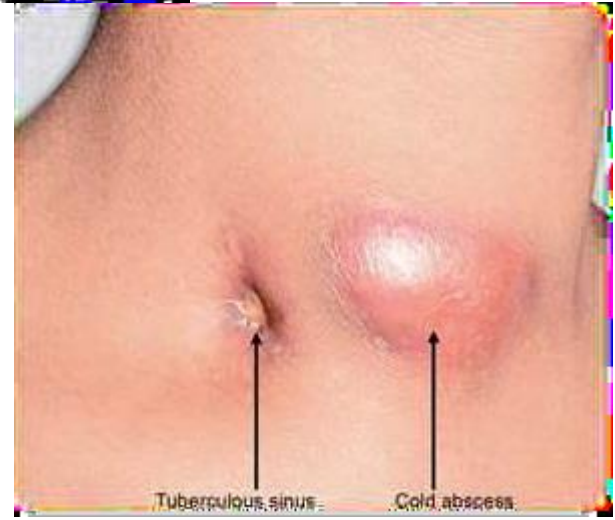
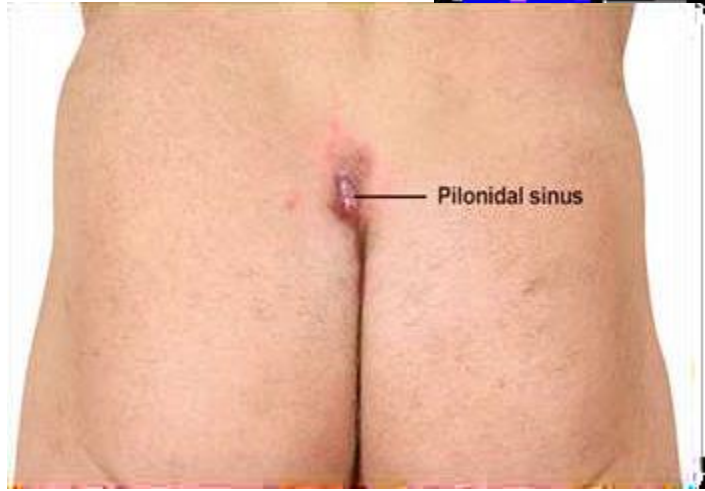
Interference by the patient



CLINICAL FEATURES

Usually asymptomatic but when infected manifest as-

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





TREATMENT

BASIC PRINCIPLES:

Antibiotics

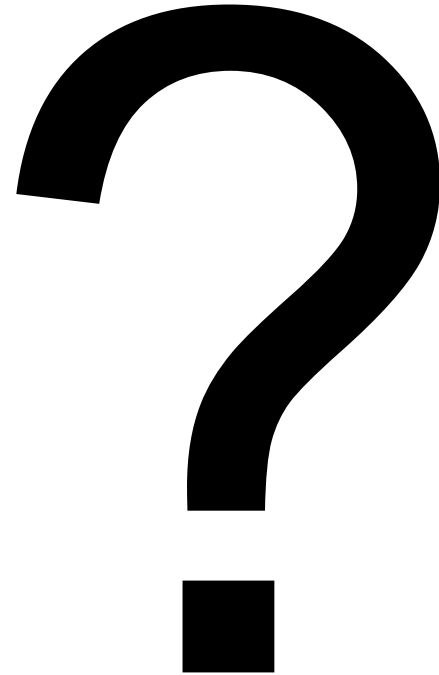
Adequate rest

Adequate excision

Adequate drainage.



Question:





Summary:

- ✓ Fistula, sinus and Ulcers are important to be identified and managed
- ✓ Ulcers can be diagnosed by shape only.
- ✓ Fistulae easy to be treated but may present as untreated ones
- ✓ Sinus has no internal communication.



Thank you