

ULCER

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An ulcer is a break in the continuity of the covering epithelium, either skin or mucous membrane due to molecular death

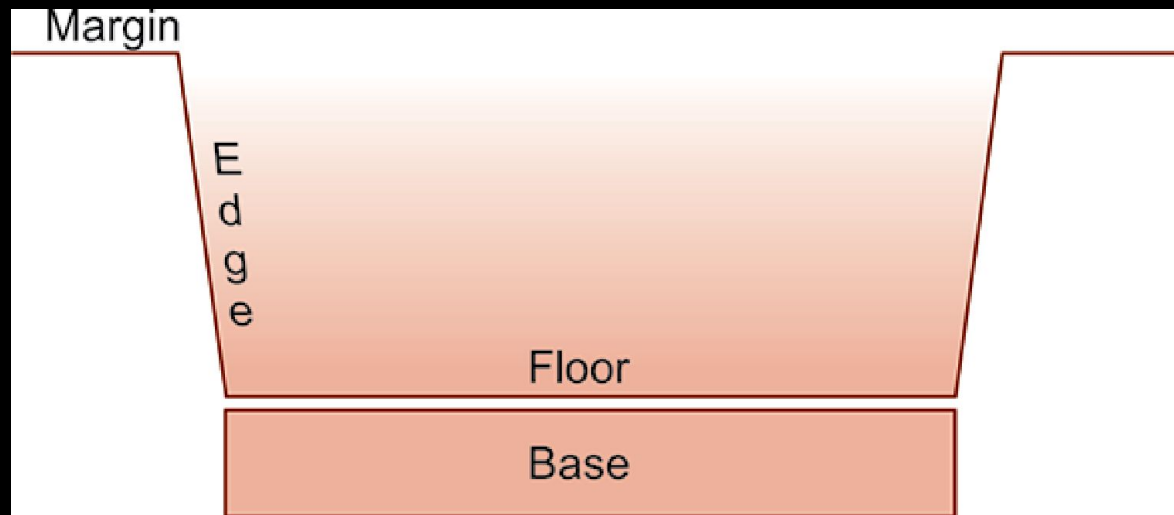


Parts of an Ulcer

a. Margin: It may be regular or irregular. It may be rounded or oval.

b. Edge: Edge is the one which connects floor of the ulcer to the margin.

Different edges are:



1-Sloping edge. It is seen in a healing ulcer.

Its inner part is red because of red, healthy granulation tissue.

Its outer part is white due to scar/fibrous tissue.

Its middle part is blue due to epithelial proliferation.

2-Undermined edge is seen in a tuberculous ulcer. Disease process advances in deeper plane (in subcutaneous tissue) whereas (skin) epidermis proliferates inwards.

3-Punched out edge is seen in a gummatous (syphilitic) ulcer

4- trophic ulcer. It is due to endarteritis.

5-Raised and beaded edge (pearly white) is seen in a rodent ulcer (BCC).

Beads are due to proliferating active cells.

6-Everted edge (rolled out edge): It is seen in a carcinomatous ulcer due to spill of the proliferating malignant tissues over the normal skin.

c. Floor: It is the one which is seen. Floor may contain discharge, granulation tissue or slough.

d. Base: Base is the one on which ulcer rests. It may be bone or soft tissue.



Sloping edge

A diagram showing a cross-section of a sloping edge. It consists of a horizontal top line, two diagonal lines sloping downwards from the top corners, and a horizontal bottom line. The area between the top and bottom lines is shaded light brown.



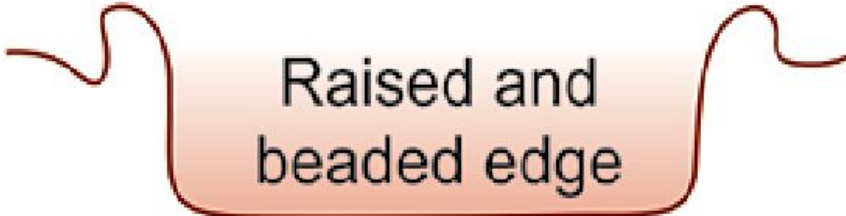
Punched out edge

A diagram showing a cross-section of a punched out edge. It consists of a horizontal top line, two vertical lines sloping downwards from the top corners, and a horizontal bottom line. The area between the top and bottom lines is shaded light brown.




Undermined edge

A diagram showing a cross-section of an undermined edge. It consists of a horizontal top line, two diagonal lines sloping downwards from the top corners, and a horizontal bottom line. The area between the top and bottom lines is shaded light brown.



Raised and beaded edge

A diagram showing a cross-section of a raised and beaded edge. It consists of a horizontal top line, two wavy lines sloping downwards from the top corners, and a horizontal bottom line. The area between the top and bottom lines is shaded light brown.



Everted edge

A diagram showing a cross-section of an everted edge. It consists of a horizontal top line, two wavy lines sloping downwards from the top corners, and a horizontal bottom line. The area between the top and bottom lines is shaded light brown.



Beaded

A diagram showing a circular arrangement of 12 red dots connected by a thin red line, representing a beaded edge.



Maggots on the ulcer bed in two different ulcers.
Maggots eat only dead tissue/slough.

Induration of an Ulcer

Induration is a clinical palpatory sign which means a specific type of hardness in the diseased tissue. It is obvious in well-differentiated carcinomas. It is better felt in squamous cell carcinoma. It is also observed in long standing ulcer with underlying fibrosis. It is absent or less in poorly differentiated carcinomas and malignant melanoma. Less indurated carcinoma is more aggressive. Specific types of indurations are observed in venous diseases and chronic deep venous thrombosis. Brawny induration is a feature of an abscess. Induration is felt at edge, base and surrounding area of an ulcer. Induration at surrounding area signifies the extent of disease (tumour). Outermost part of the indurated area is taken as the point from where clearance of wide excision is planned

Classification (Pathological)

a. Specific ulcers:

1-Tuberculous ulcer.

2-Syphilitic ulcer: It is punched out, deep, with “washleather” slough in the floor and with indurated base.

3-Actinomycosis.

4-Meleney’s ulcer.it is a postoperative wound infection in immunocompromised patient with synergistic bacterial infection

b. Malignant ulcers:

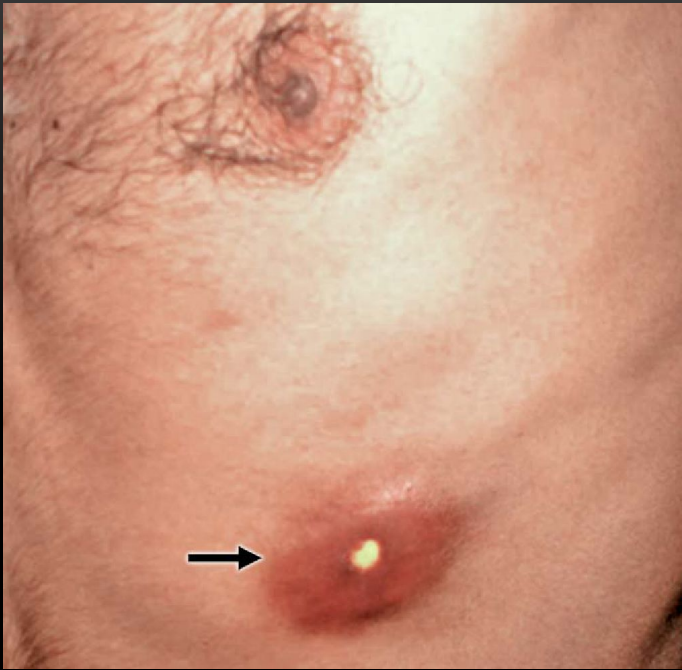
1-Carcinomatous ulcer

2-Rodent ulcer (BCC)

3-Melanotic ulcer.

c. Nonspecific ulcers:

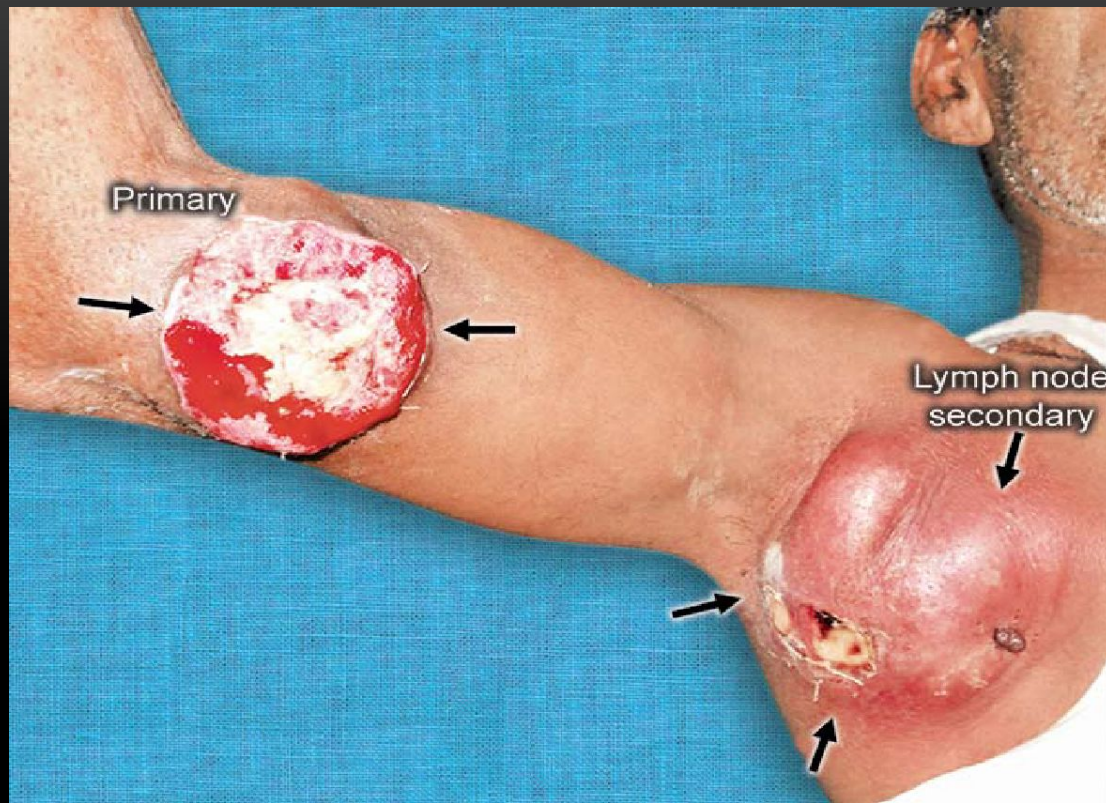
- 1- Traumatic ulcer: It may be mechanical, physical, chemical—common.
- 2- Arterial ulcer: Atherosclerosis
- 3- Venous ulcer: Gravitational ulcer, post-phlebitic ulcer.
- 4- Trophic ulcer/Pressure sore.
- 5- Infective ulcers: Pyogenic ulcer
- 6- Tropical ulcers: It occurs in tropical countries e.g. Vincent's ulcer (vitamin B deficiency))
- 7- Ulcers due to chilblains and frostbite (cryopathic ulcer).
- 8- Diabetic ulcer.



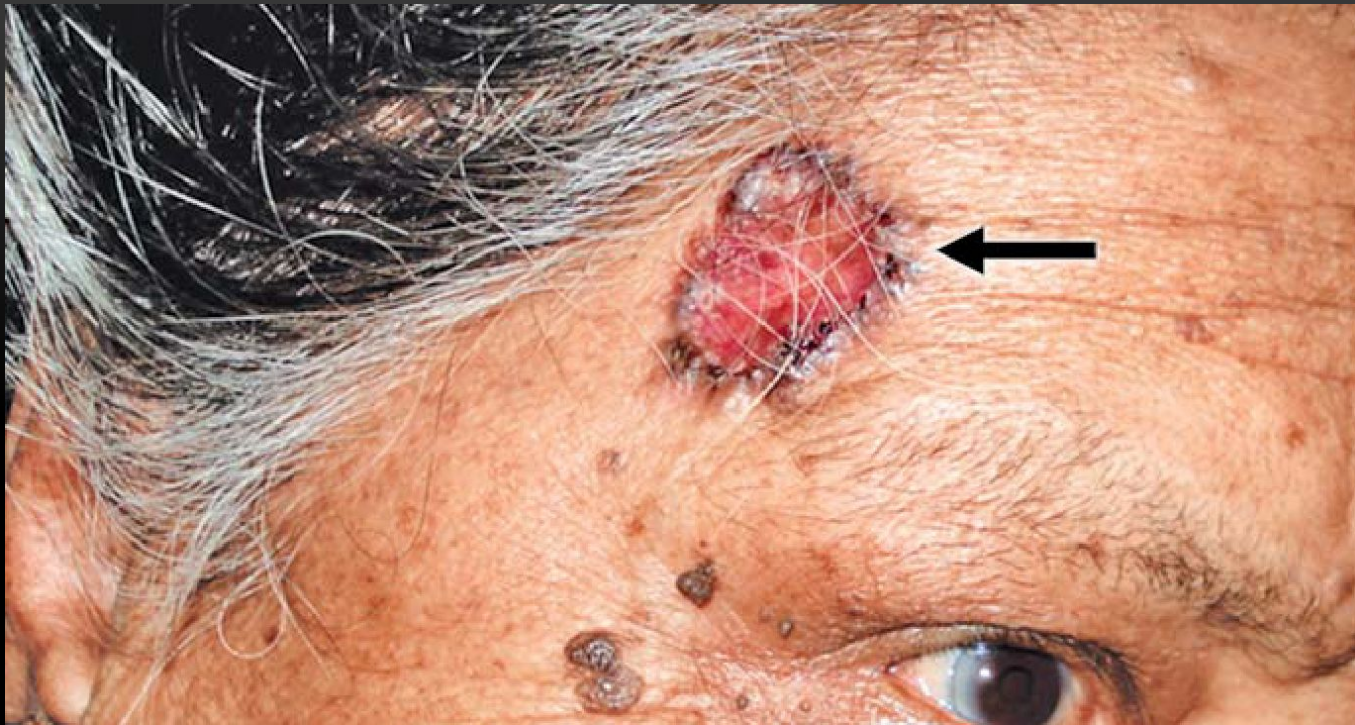
Tuberculous ulcer in chest wall and ankle in two separate patients. Note the undermined edge. Discharge study, biopsy and later antituberculous drugs are the treatment. They are usually painful



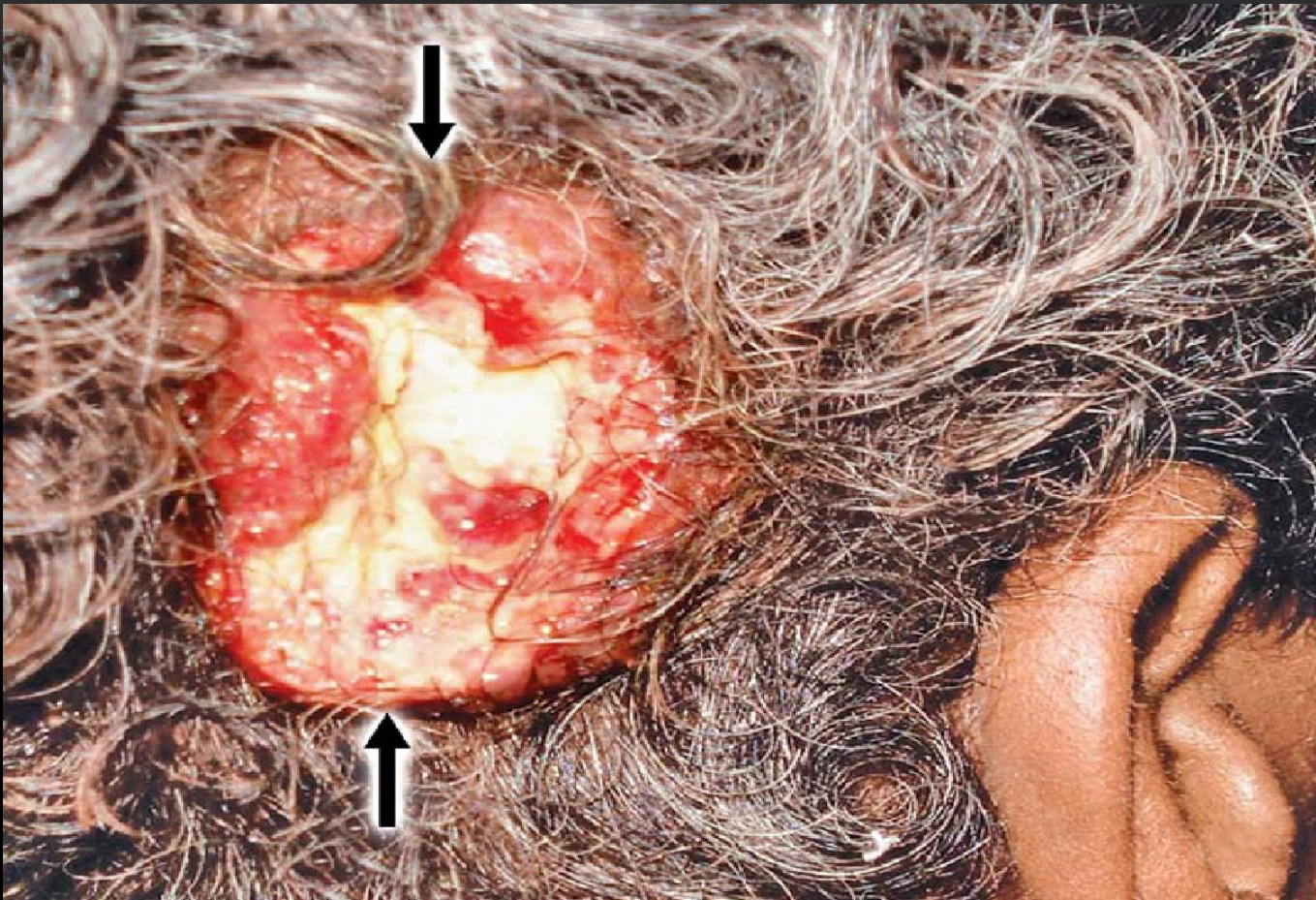
Callous ulcer without any sign of healing, without any granulation tissue. It is due to callous attitude of the patient.



Squamous cell carcinoma in the arm with secondaries in the axillary lymph node. Friable tumour tissues in the floor cause bleeding after trauma. Secondaries are fixed with ulceration. It is advanced disease.



Basal cell carcinoma of face (rodent ulcer). Ulcer edge is raised and beaded in appearance



Squamous cell carcinoma scalp. Note the ulceroproliferative lesion with everted edge.



Ischaemic ulcer foot. Middle three toes are already amputated because of gangrene.



Venous ulcers in both feet. Site is around ankle . There are healthy granulation tissues. It needs skin grafting and definitive procedure for varicose veins after evaluation



Nonhealing ulcer with pale unhealthy granulation tissue



Ulcer in the foot, initially with slough; later after slough excision and regular dressings. Area requires skin grafting



Ulcer leg with exposed bone. Patient underwent local rotation flap to cover. Area from where flap is rotated is covered with split skin graft. When the bone is exposed, skin grafting is not possible.



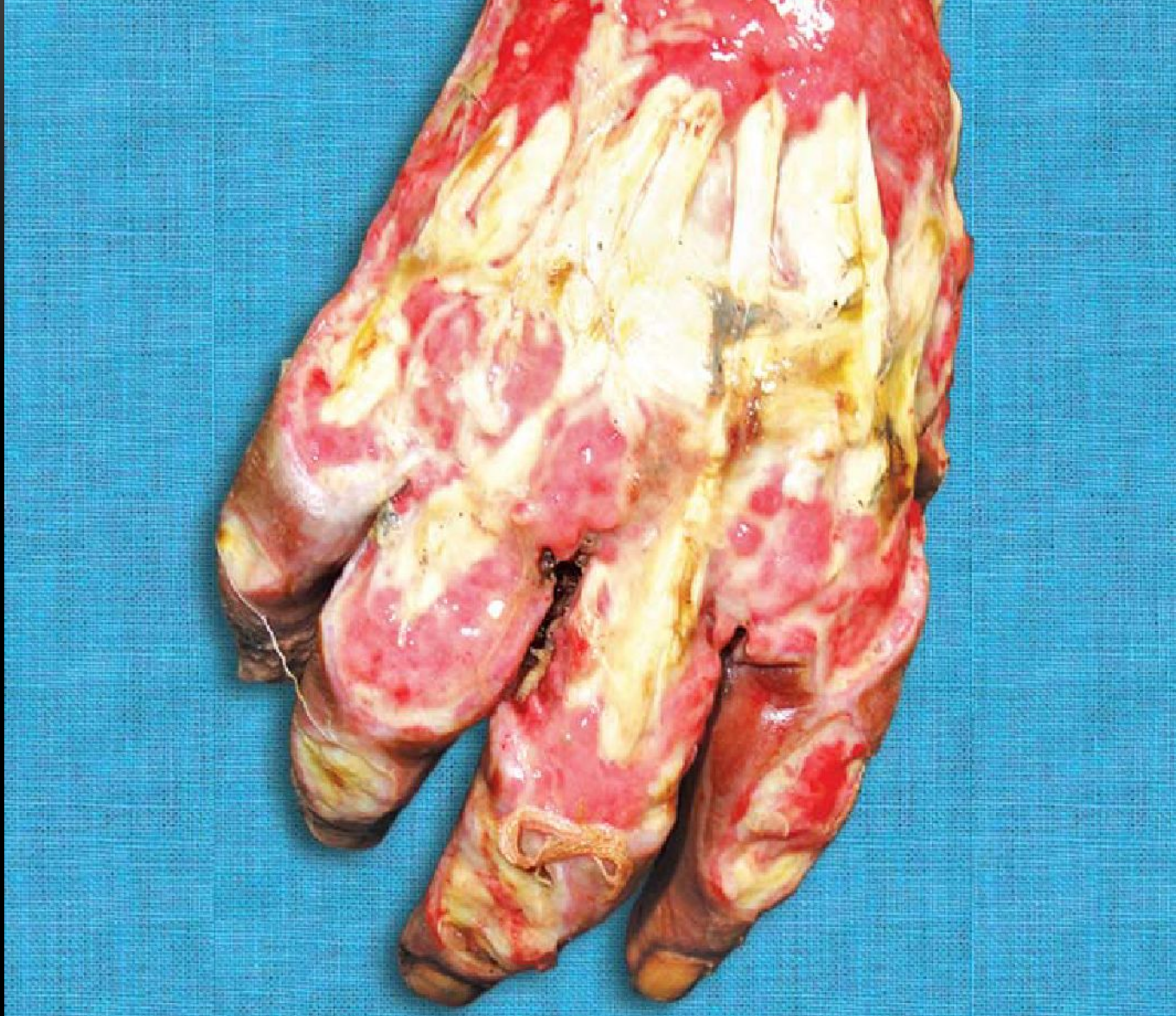
Infective ulcer in the foot. Note the quantity of slough,exposed tendon and gangrenous toes. Patient requires below or above knee amputation.



Healing ulcer with healthy granulation tissue. Note the sloping edge



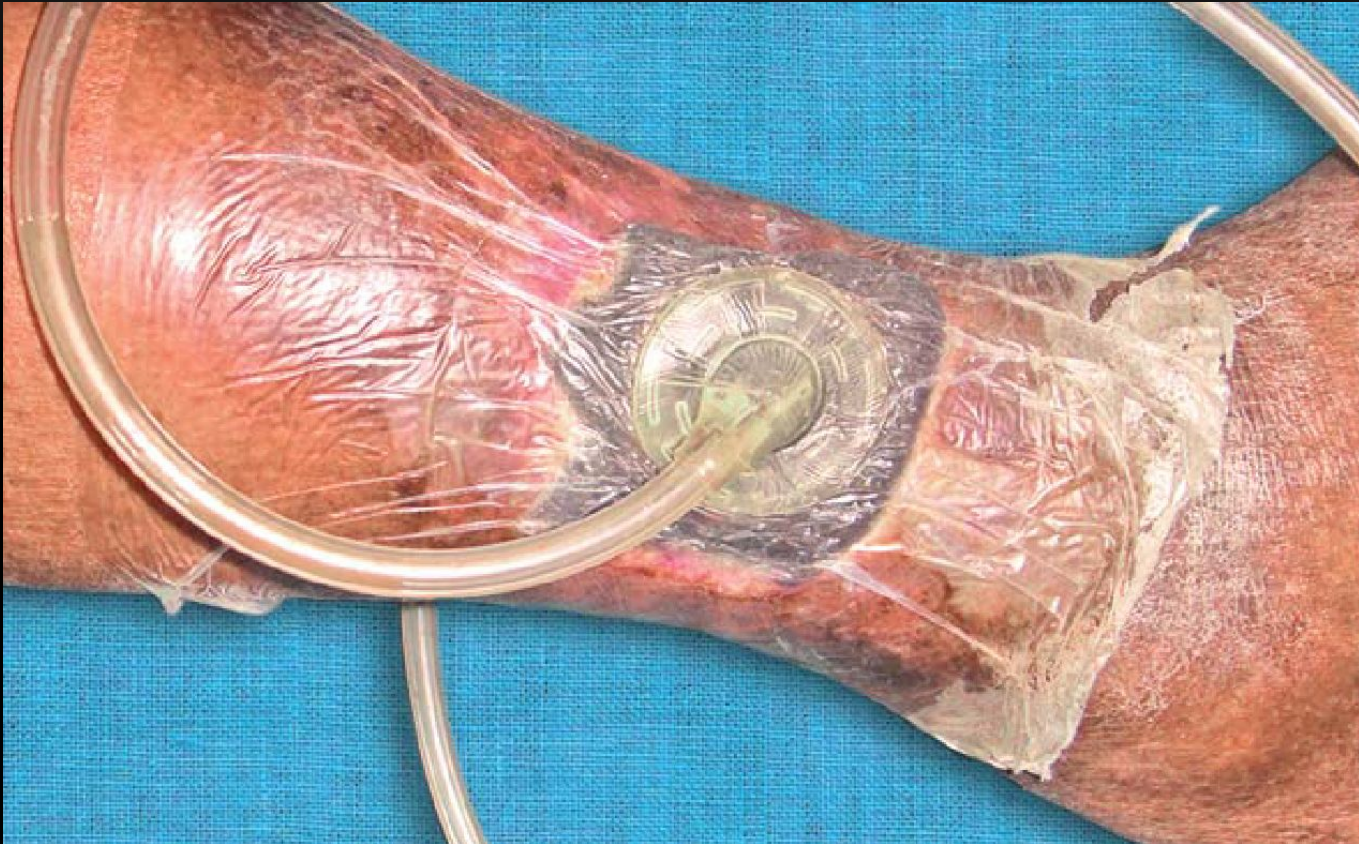
Trophic ulcer—heel. It is deep punched out ulcer. It often requires rotation flap/transposition flap.



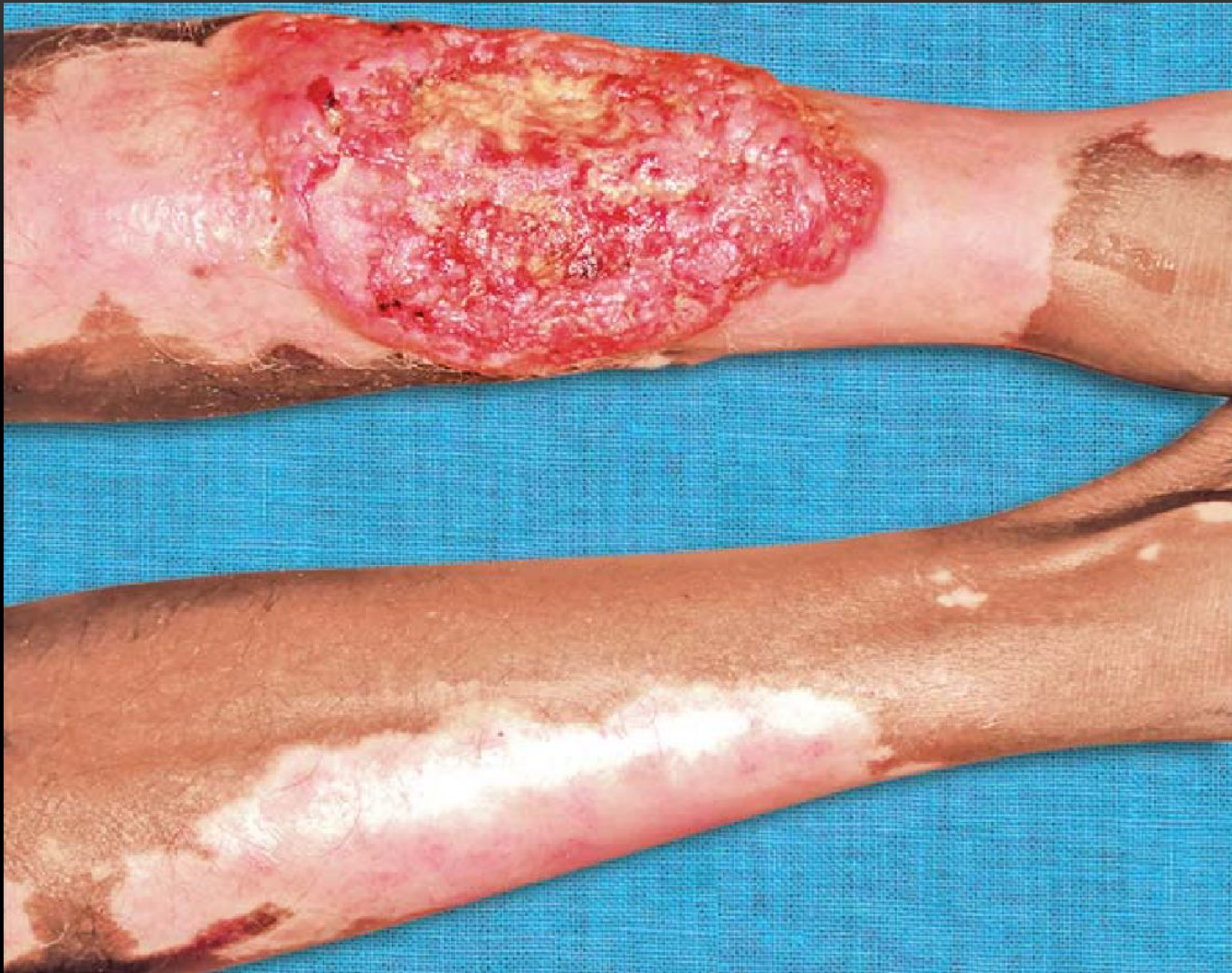
Degloving ulcer with devitalised exposed tendons on the dorsum of the hand



Bedsore over the sacrum with thick black slough on the surface.



Vacuum assisted closure of an ulcer



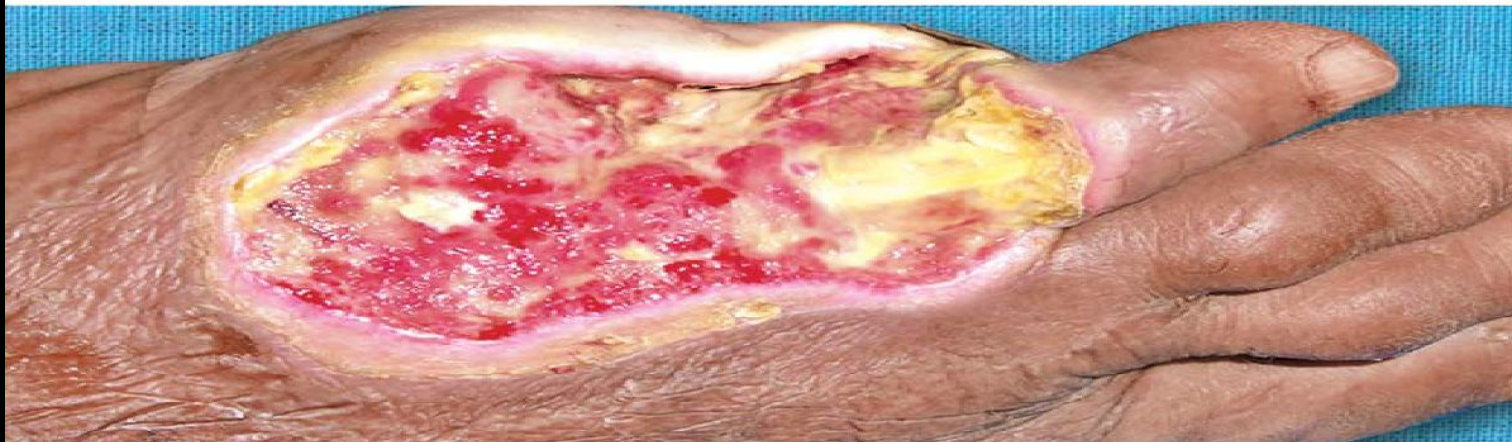
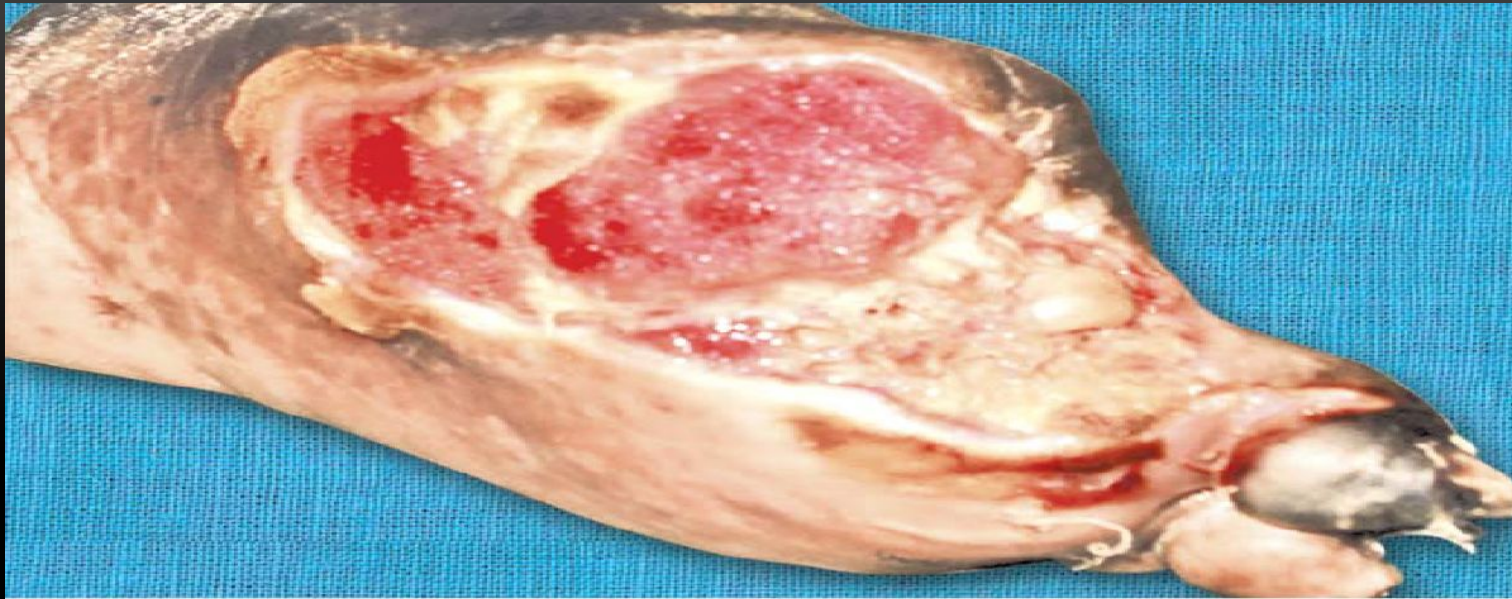
Marjolin's ulcer in a chronic unstable scar (of long duration) in the leg. It does not spread through lymphatics



Melanotic ulcer in the foot with



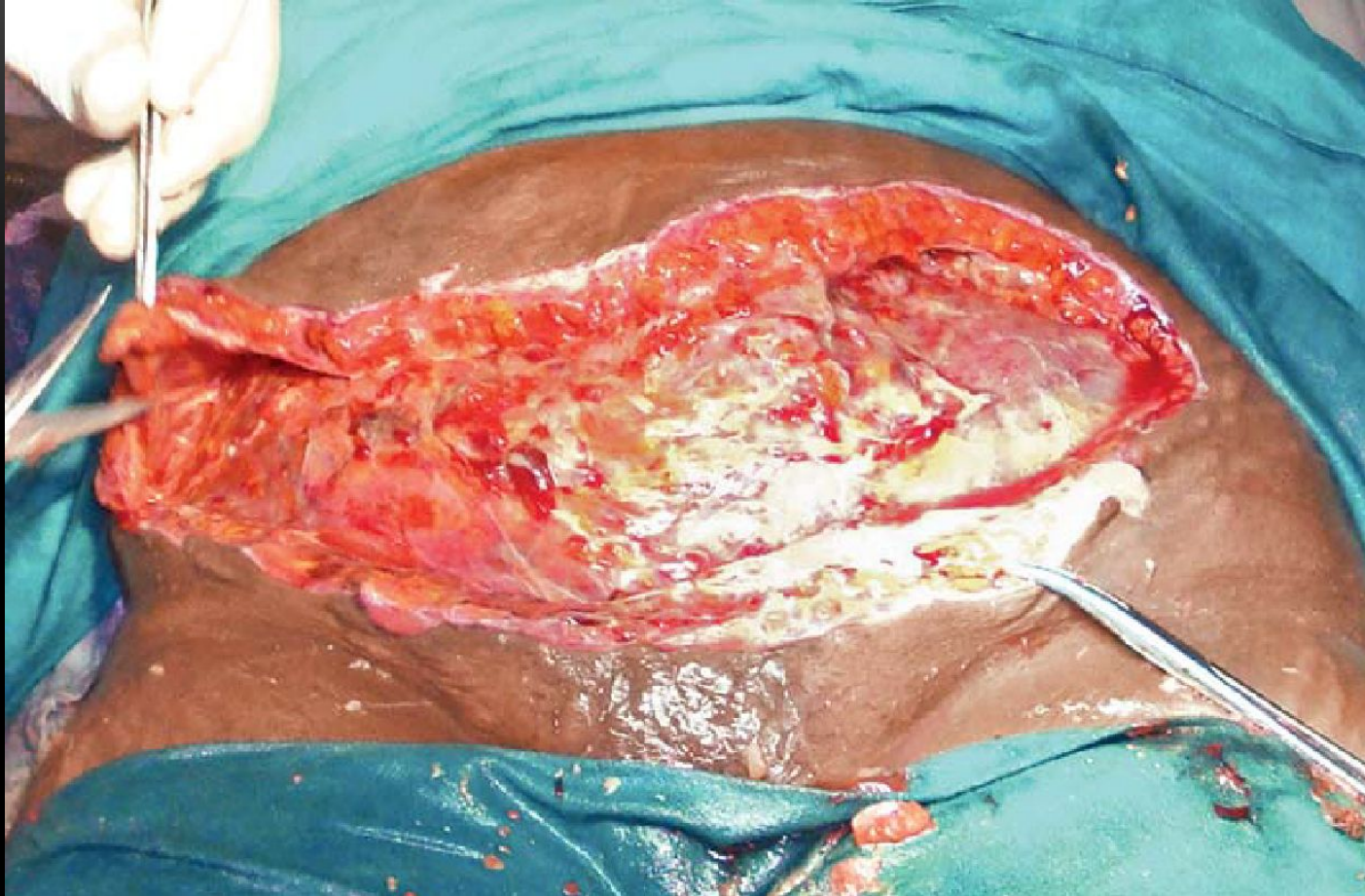
enlarged inguinal lymph nodes



Foot is the most common area for diabetic infective problems. It can cause abscess, ulcer, osteomyelitis, gangrene, septicemia. Initially patient undergoes toe amputation but later eventually land with below knee or above knee amputation.



Diabetic ulcer foot.



Meleney's ulcer.