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Abscess

- A abscess is a localized collection of pus in the skin and may occur on any skin surface and be formed in any part of body.

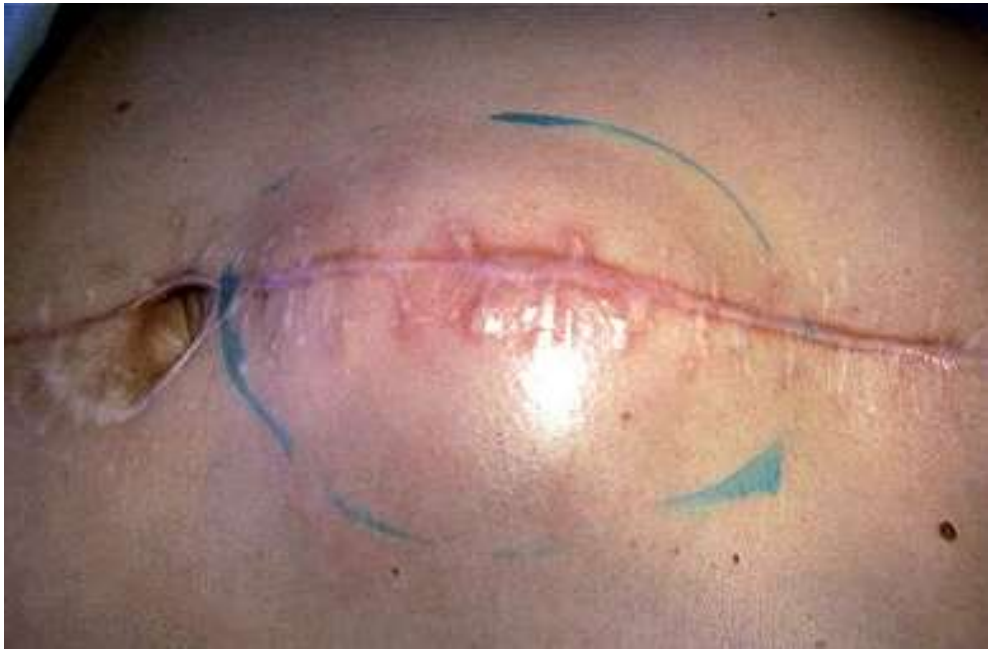
Ethyology

- Bacteria causing cutaneous abscesses are typically indigenous to the skin of the involved area.
- For abscesses on the trunk, extremities, axillae, or head and neck, the most common organisms are *Staphylococcus aureus* and streptococci.
- In recent years, methicillin-resistant *S. aureus* (MRSA) has become a more common cause.

- Abscesses in the perineal (ie, inguinal, vaginal, buttock, perirectal) region contain organisms found in the stool, commonly anaerobes or a combination of aerobes and anaerobes.
- Cutaneous abscesses tend to form in patients with bacterial overgrowth, antecedent trauma (particularly when a foreign body is present), or immunologic or circulatory compromise.

Symptoms and Signs

- abscesses are painful, tender, indurated, and erythematous.
- Initially the swelling is firm; later, as the abscess "points," the overlying skin becomes thin and feels fluctuant.
- The abscess may then spontaneously drain.
- Local cellulitis, lymphangitis, regional lymphadenopathy, fever, and leukocytosis are variable accompanying features.



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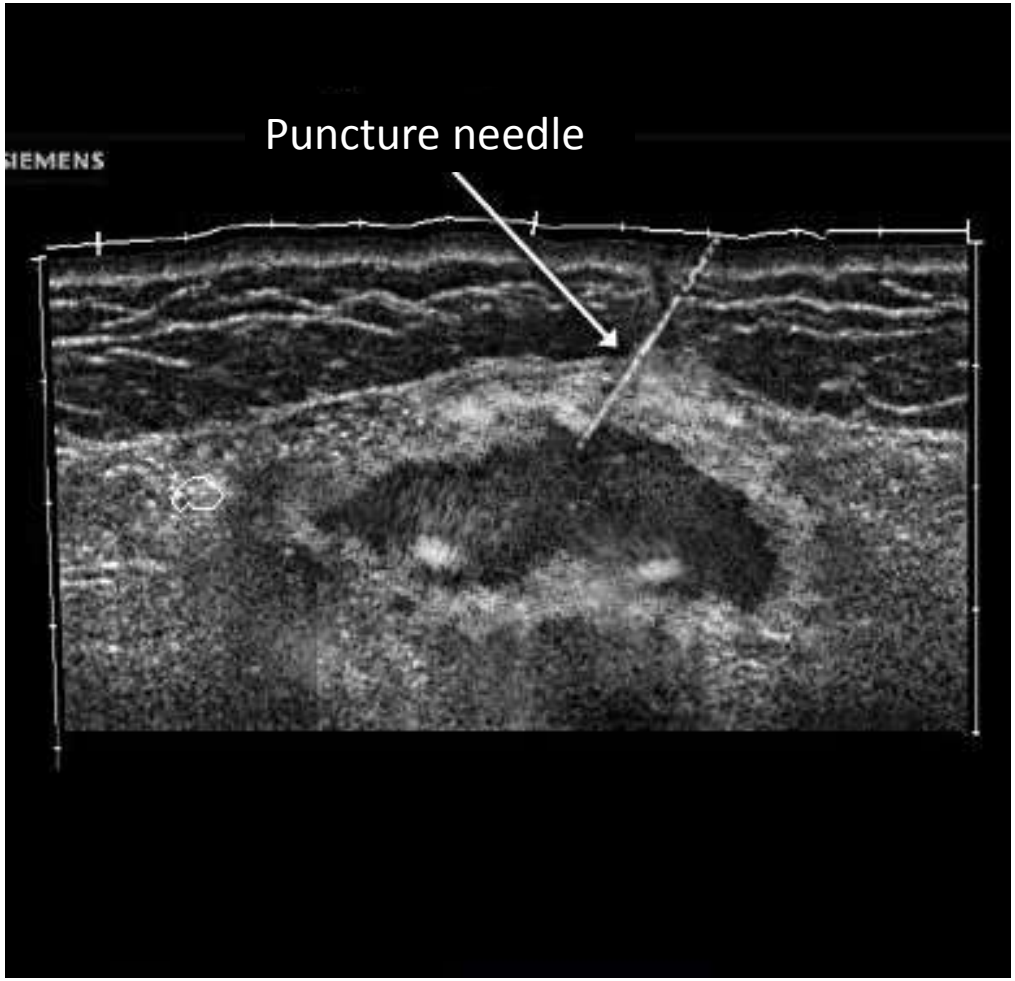
Superficial abscesses

For verify of diagnosis of superficial located abscesses diagnostic puncture can be performed

Deep abscesses (in any organ, e.g. in liver)

For verify of diagnosis and treatment (drainage) of deep located abscesses diagnostic puncture with pus evacuation under ultrasound control can be performed



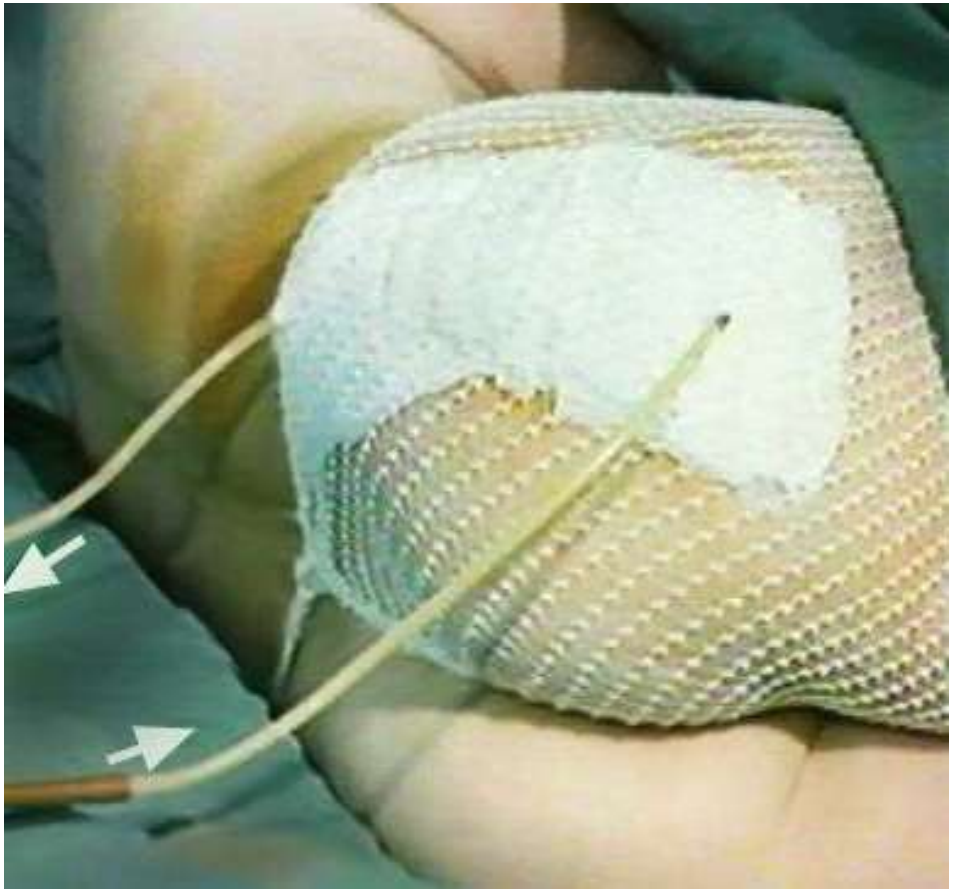
Treatment

- Incision and drainage are indicated when significant pain, tenderness, and swelling are present; it is unnecessary to await fluctuance. Under sterile conditions, local anesthesia is administered
- Antibiotics are unnecessary unless the patient has signs of systemic infection, cellulitis, multiple abscesses, immunocompromise, or a facial abscess in the area drained by the cavernous sinus.

Most commonly operation is ended without suture, wound is left opened

closure of wound

after treatment, cleaning of wound from nonviable tissue, necrosis, pus:
second suture can be placed with irrigation of wound with antiseptic solution through tubes



Result of treatment

After removal of suture

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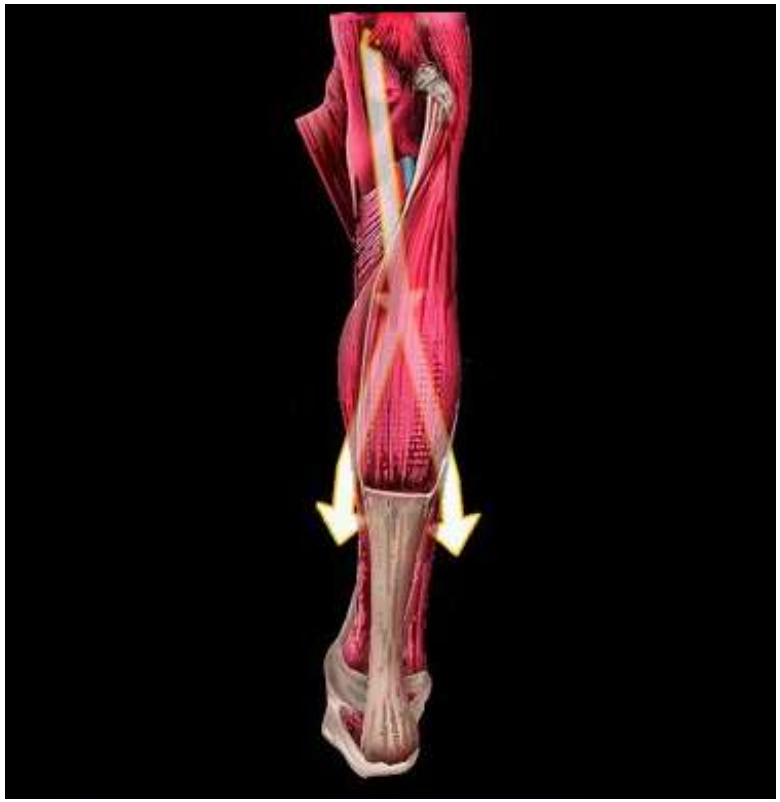
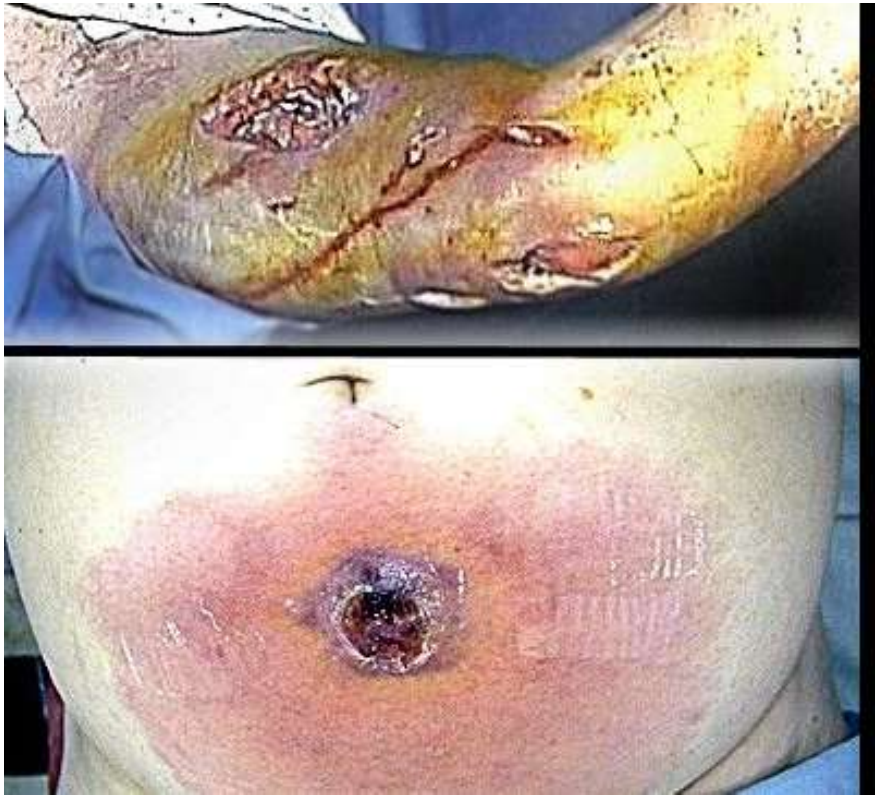
Phlegmon

Distinct of abscess, phlegmon have no border of pus accumulation



As abscesses, Phlegmons are divided into superficial and deep



For opening of phlegmon

some connecting wound

Or one wide insicion is used

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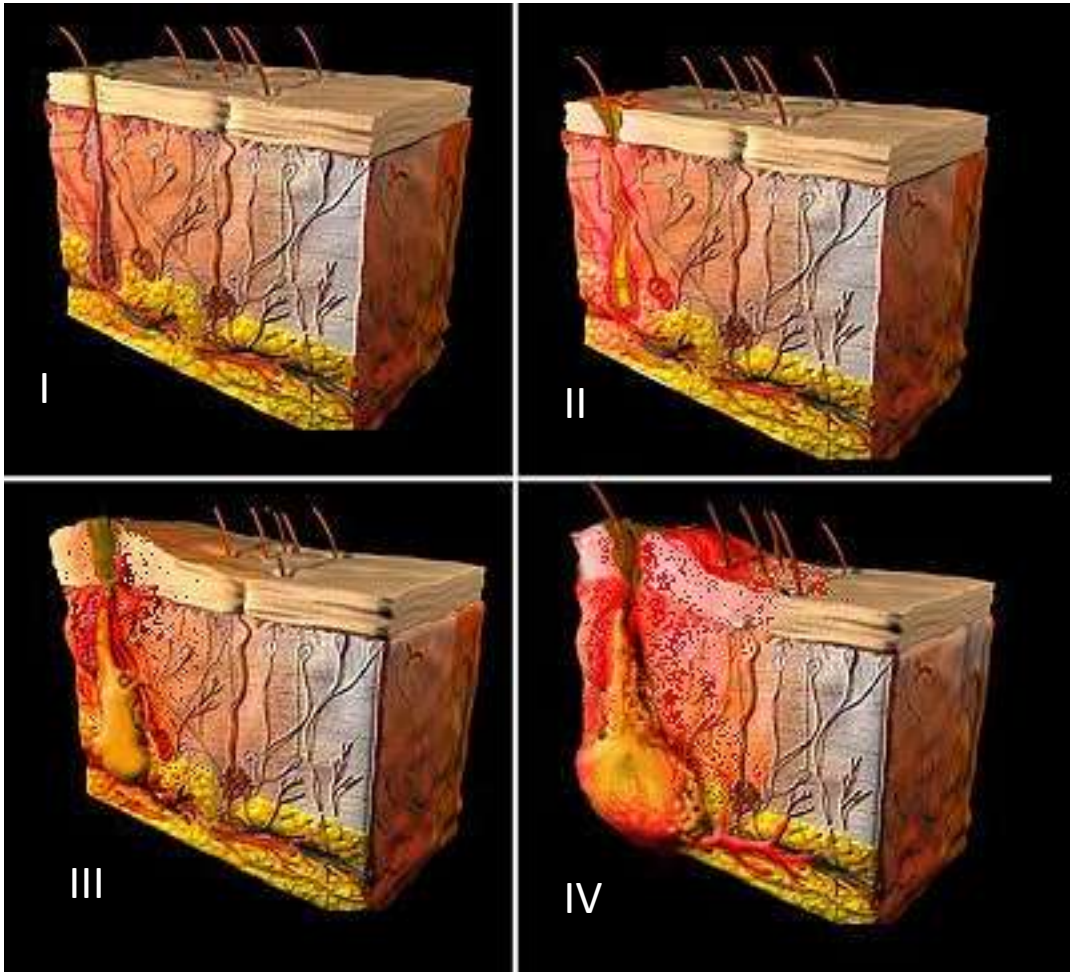
Furuncles

- **Furuncles are skin abscesses caused by staphylococcal infection, which involve a hair follicle and surrounding tissue.**



- **Furuncles are common on the neck, breasts, face, and buttocks.**
- **Appearance is a nodule or pustule that discharges necrotic tissue and sanguineous pus**

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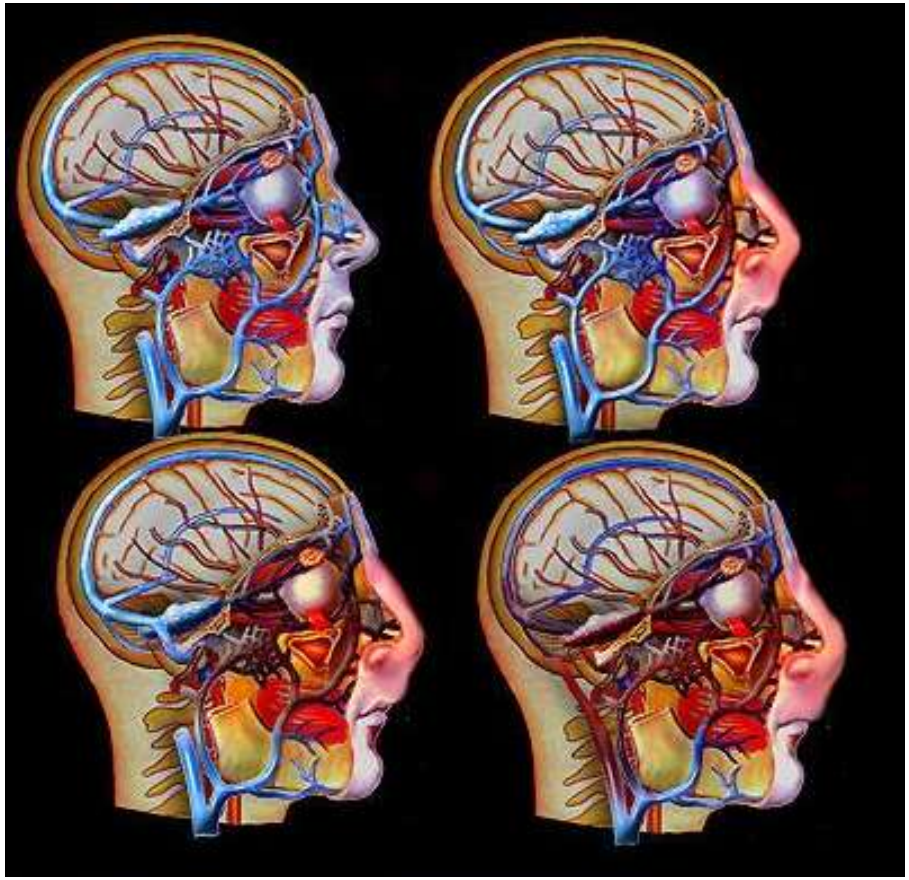
face furuncle

Localization of furuncle in upper half of face, especially at the nose, is very dangerous due to possibility spreading of infection into cavernous sinus through vein
All patient with face furuncle should be hospitalized

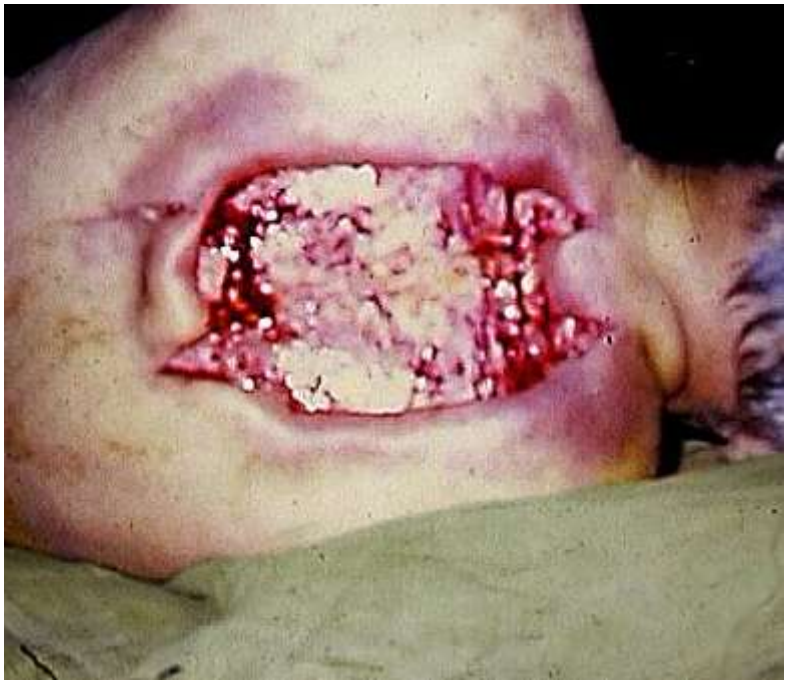


Treatment

- In usual cases antibiotic treatment is enough.
- In abscessed form of furuncle surgical treatment: incision, removal of purulent-necrotic core

Carbuncle

- Carbuncles are clusters of furuncles connected subcutaneously, causing deeper suppuration and scarring.
- Extended hyperemia of skin and firm, tenderness infiltrate is usually absent



- Carbuncle without appropriate tend to spreading, with involving of surrounding tissue
- Progress of local lesion lead to extended necrosis of skin, multiple abscesses is formed

Treatment

Excision of all necrotic tissue (skin and subcutaneous cell) within of viable tissue without sutures

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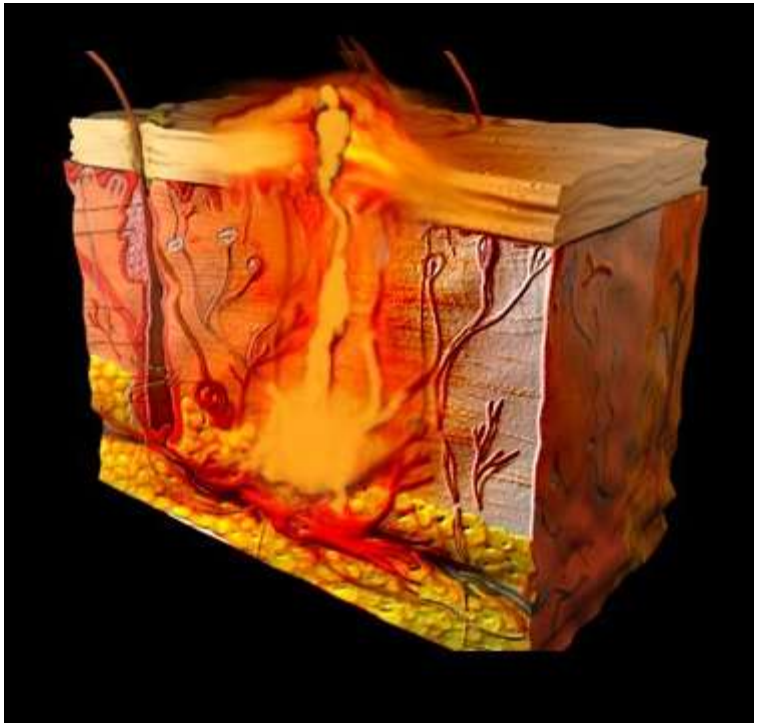
Hidradenitis Suppurativa

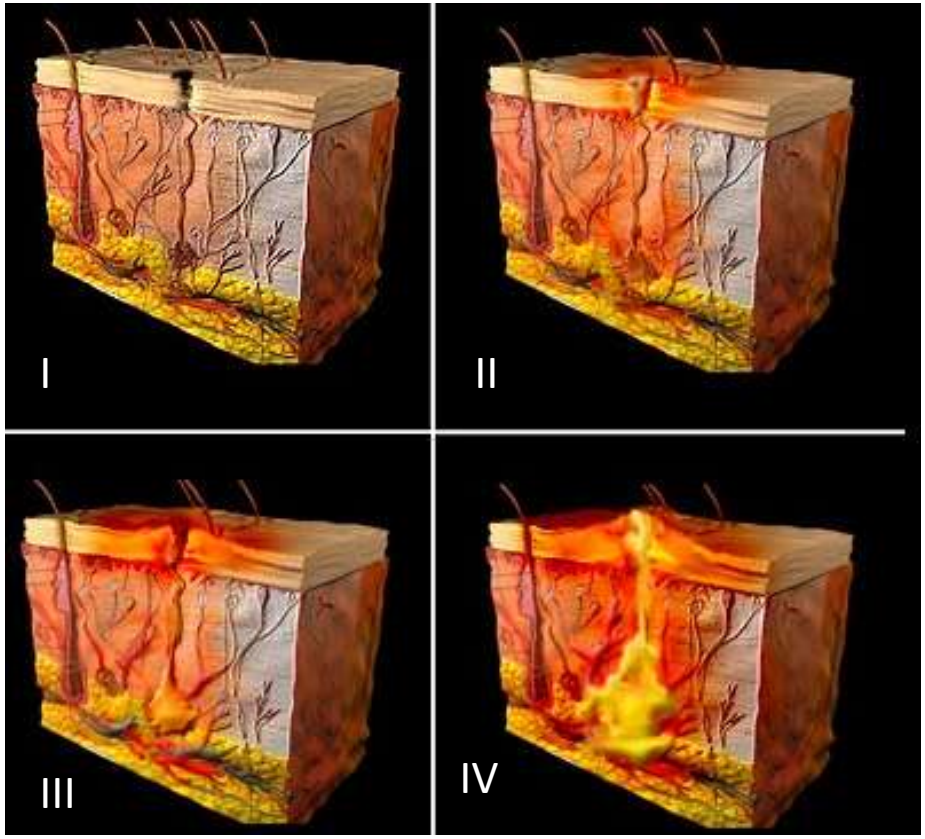
- Hidradenitis suppurativa is acute or chronic, scarring inflammation of apocrine glands of the axillae, groin, and around the nipples and anus.



Signs

- Swollen, tender masses resembling cutaneous abscesses develop.
- Pain, fluctuance, discharge, and sinus tract formation are characteristic

• The nodules develop into pustules and eventually rupture with discharge of purulent material.



Ethiology

- Staphylococcus aureus is almost always implicated in acute cases, but gram-negative organisms such as Proteus may predominate in chronic cases.

Patophysiology

- Blockage of apocrine ducts has been suggested as the cause, leading to subsequent inflammation, bacterial overgrowth, mucopurulent discharge and progressive scarring, with induration, ulceration and sinus and fistula formation.
- Overall it occurs more often in women. Submammary, axillary, and inguinal involvement is more common in females, but perineal involvement is more common in men.
- Usually presents between the ages of 20 and 30 years and is variable in severity and distribution.

Management

- Early lesions are usually treated by medical therapy, but long-standing disease usually requires surgery.

Surgical

- Acute stage: incision and drainage, followed by antibiotics

Chronic stage

- They may persist for weeks or months. Episodes of acute cellulitis may occur.
- Recurrences tend to occur in the same region, leading to chronic sinus formation, with intermittent release of serous, purulent, or bloodstained discharge. Sinus formation and rupture may occur internally into adjacent structures as well as externally.

Treatment in Chronic stage

Chronic stage: excision and primary closure or excision of all hair-bearing areas and reconstruction with a graft or a flap

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Erysipelas

- Erysipelas is characterized clinically by shiny, raised, indurated, and tender plaque-like lesions with distinct margins. There is also a bullous form of erysipelas. Erysipelas is most often caused by group A β-hemolytic streptococci and occurs most frequently on the legs and face. It is commonly accompanied by high fever, chills, and malaise. Erysipelas may be recurrent and may result in chronic lymphedema.

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Erythematous form

Haemorrage form

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Complication of erysipelas

Lymph-vein insufficiency

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Lymphadenitis

- **Lymphadenitis is an acute infection of one or more lymph nodes.**
- Lymphadenitis is a feature of many bacterial, viral, fungal, and protozoal infections. Focal lymphadenitis is prominent in streptococcal infection, tuberculous or nontuberculous mycobacterial infection, tularemia, cat-scratch disease, primary syphilis, lymphogranuloma venereum, chancroid, and genital herpes simplex. Multifocal lymphadenitis is common in infectious mononucleosis, cytomegalovirus infection, toxoplasmosis, brucellosis, secondary syphilis, and disseminated histoplasmosis.

Symptoms and Signs

- Lymphadenitis typically causes pain, tenderness, and lymph node enlargement. Pain and tenderness typically distinguish lymphadenitis from lymphadenopathy. With some infections, the overlying skin is inflamed, occasionally with cellulitis. Abscesses may form, and penetration to the skin produces draining sinuses. Fever is common.

Treatment

- Treatment of cause
- Treatment is directed at the cause and is usually empiric:
- antibiotics, antifungals, and antiparasitics depending upon etiology or clinical suspicion. Many patients with lymphadenitis may respond to outpatient therapy with oral antibiotics. However, many also go on to form abscesses, which require surgical drainage
- Lymphadenitis usually resolves with timely treatment, although residual, persistent, lymphadenopathy is common

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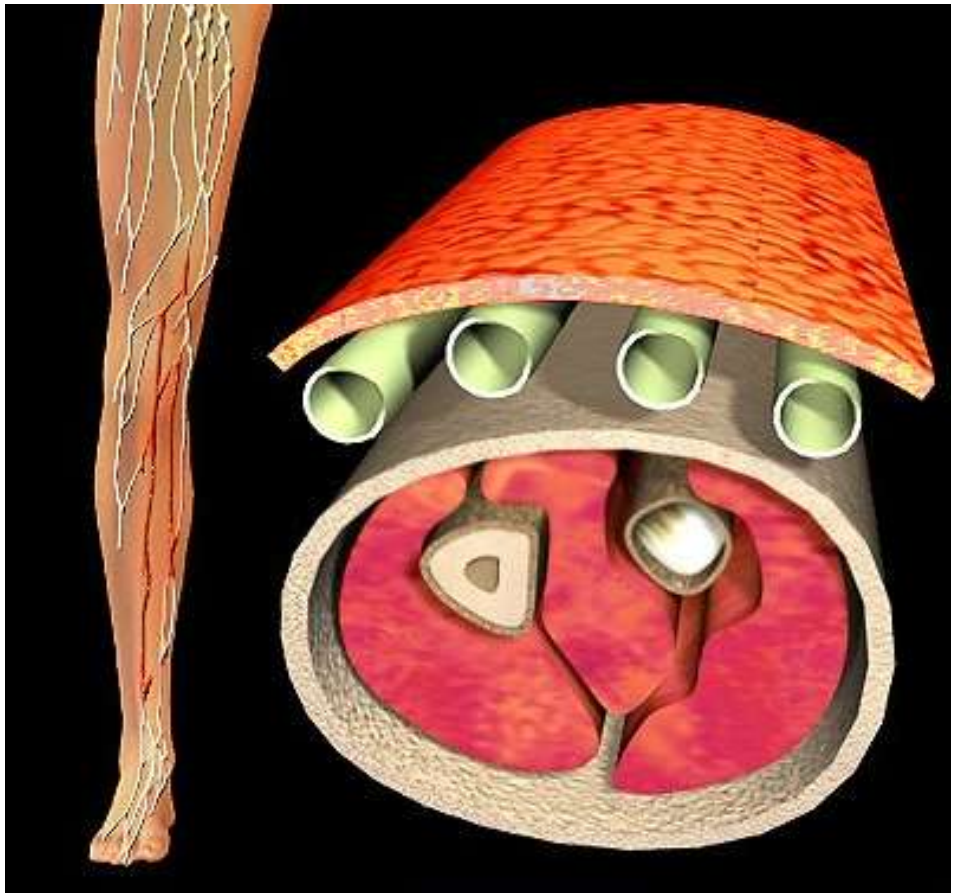
Lymphangitis

•Is acute inflammation of lymphatic vessels
Most commonly is complication of any infectious lesions
•Lymphangitis is divided into reticulous and truncularis



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Reticulous Lymphangitis

Truncularis Lymphangitis

- Appearance is 2-3 red strip, which spread from inflammation foci to lymph node