




COMMON SKIN INFECTION

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Common skin infections

- Boil
 - Abscess
 - Carbuncle
 - Cellulitis
 - Erysipelas
- 



Boil


- Also known as FURUNCLE
 - DEFINATION:
 - It is an acute staphylococcal infection of a hair follicle with peifolliculitis.
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Boil





Clinical features

- Painful and indurated swelling
 - Tenderness and edema
 - Associated with fever
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Sites

- Common on the back and neck
- In the external auditory meatus
- Peri-anal area

Progress (sequence of event)


- Painful swelling
- Edema of surrounding tissue
- Softening of centre
- Small pustule
- Burst spontaneously
- Discharge of pus
- Deep cavity develops
- Heal by granulation tissue

Suppuration burst out.





Complications

- Cellulitis
 - Hydradenitis
 - Lymphadenopathy
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Treatment


- Improve General health
- Allow escape of pus itself.
- If not,remove hair follicle
- Apply iodine
- Antibiotic if boils are at multiple site
- After removal of pus ,the part should be cleaned with disinfectant
- If boils are recurrent exclude diabetes

Other types

- Blind boil
- is one which subside without suppuration
- Stye
- Similar infection of eyelash hair follicle.
- It is also due to infection of gland of zies.



Carbuncle


- Defination :
 - It is an infective gangrene of the subcutaneous tissue due to staphylococcal infection.
 - Both gram positive and negative occurs simeltaneously.
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Carbuncle





sites

- On the back
 - In the nape of neck
 - Shoulder
 - Dorsum of hand
 - cheeks
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Pathology

- When infecting organism invade the deeper layers of skin and subcutaneous tissue, carbuncle develops
- Series of communicating abscess which discharge by separate opening on the surface
- So, surface is sieve like also known as cribriform appearance.

Carbuncle multiple discharging opening in skin






Pathology

- They are more extensive than they appear
- Central slough surrounded by necrosis
- Sinuses coalesce and they open with fresh opening
- It heals with characteristic induration



Clinical features

- Mostly affect male above 40 years of age
 - Diabetic patients
 - Progress same as boil
 - Slough is ashy grey
 - It may extend in muscle and bone if untreated.
- 




Treatment

- Improve general health
- Control diabetes
- Proper antibiotic according to culture and sensitivity report
- Mag sulph powder
- Hot compression before bursting



Operation

- Surgery needed when
 - 1)when toxemia and pain persist even after antibiotic course
 - 2)when the size is more than 2.5 inches

 - Incision is never made unless there is softening in the centre.
- 


Abscess

- Defination
- An abscess is collection of pus in the body.





Types

- There are 3 types :
 - Pyogenic abscess
 - Pyemic abscess
 - Cold abscess
- 




Pyogenic abscess

- Commonest type
- Entry of bacteria to form abscess by
 - 1) direct infection from outside due to penetrating wound
 - 2) local extension from adjacent focus of infection
 - 3) lymphatics
 - 4) hematogeneous



Pathology


- Suppurative infection
 - Cell death and liquefaction
 - Cell death caused by toxins
 - Liquefaction caused by proteolytic enzymes released from dead PMN leucocytes
 - Yellow alkline fluid is called pus
 - Abscess is lined by pyogenic membrane
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Pathology

- Recovery starts when pyogenic membrane converts into fibrous tissue
- **ANTIBIOMA** –Excess of fibrous tissue with around an abscess due to prolonged treatment with antibiotic.
- Its consistency may become hard like carcinoma




Clinical features

- CF of acute illness like
 - Redness(rubor)
 - Pain(dolor)
 - Heat(calor)
 - Swelling(tumor)
 - Impairment of function(funcioloesa)
- 



Investigation

- **X ray** -when there is gas or air with pus e.g. subphrenic abscess
 - **USG**-to detect abscess in liver or spleen
 - **CT scan**-to differentiate abscess and tumor
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Treatment

- Antibiotic
- Rest of local part
- Drainage of pus when it is localized
- Incision and drainage (I & D)
- HILTON'S METHOD-it is done when there are plenty of multiple vital structure like nerve and vessel around abscess.
- Follow up must .

Pyaemic abscess

- Multiple abscesses develop from infected emboli
- Pyaemia is a condition characterized by formation of secondary foci of suppuration in various parts of body.
- Pyaemia is occasionally associated with conditions like acute osteomyelitis, acute bacterial endocarditis.
- In acute appendicitis, when the infective emboli pass into the portal venous system and cause “portal pyaemia”

Pyaemic abscess

- Multiple
- In the subfascial plane
- Non reacting in nature
- Constitutional symptoms like fever, rigor and toxemia
- May occur in viscera like spleen and kidney
- Death may occur if they are present in vital organs like brain ,heart.
- Tx-IV antibiotic,remove source of infection.



Bacteraemia

- Bacteria circulating in the blood
- It occurs in every infection ,after every tooth extraction due to caries and major traumatic wounds
- It is usually transient
- RE cell rapidly destroy these organisms

Septicaemia

- It is condition characterized by the presence of bacteria and certain clinical manifestation due to liberation of toxins by the bacteria.
- Clinical features are:
 1. Pyrexia
 2. Rigors
 3. Hypotension
 4. Intravascular coagulation defect
 5. Petechial hemorrhage


Always there is local foci of infection from where bacteria can enter into the blood

Septicemia

- Most frequently responsible organism is beta-hemolytic streptococci(strep.pyogens)
- May be caused by alpha- beta-hemolytic streptococci(strep.viridans)
- Salmonella and brucellosis
- Major routes are:
 - By direct extension
 - By release of infected emboli
 - By discharge of infected lymph




Treatment

- IV Antibiotics
 - Mainly aminoglycosides and metronidazole
 - Blood transfusion
 - Plasma expander
 - Hydrocortisone
- 



Toxemia

- It is condition in which either chemical or bacterial toxins circulate in the blood stream
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Cold abscess



Cold abscess

- It is cold and non reacting in nature
- It is painless and heat is not produced
- Induration, oedema and tenderness are absent except if associated with secondary infection
- It is a sequel of TB infection of bone, joint, and most commonly in the lymphnodes
- Caseation of the lymphnodes cause cold abscess

Cold abscess

- Sites :
- Neck and axilla
- Loin if infection in spine
- At the side of chest wall from TB of ribs
- Near the ends of long bone if infection in bone
- Tx-
- AKT regime
- Not responded then affected LN excised

Cellulitis


- Actually cellulitis term is misnomer because the lesion is of connective tissue and interstitial tissue and not of the cells.
- Def:
- It is non suppurative inflammation spreading along the subcutaneous tissues and connective tissue planes and across intercellular spaces
- Diabetic patient are more prone to suffer

Cellulitis

- Causative agent :
- Streptococcus pyogenes.
- Pathology:
- Through wound or scratch
- Organism gain entry
- Swelling and redness
- No definite localization
- Site of inoculation become red
- Skin swell and become shiny
- In severe infection blebs and bullae forms




Cellulitis

- Clinical features:
 - Fever
 - Swelling
 - Pain at affected part
 - Warm, tender and swollen on local exam
 - Pitting edema
 - Brawny induration
 - lymphadenopathy
- 



Cellulitis

- Treatment :
 - Rest and leg end elevation
 - Antibiotic (broad spectrum)
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Erysipelas



Erysipelas

- Def-it is an acute inflammation of the lymphatics of the skin or mucus membrane.
- Causative agent :
- Streptococcus pyogenes(hemolytic group A)
- Pathology:
- Through wound or scratch
- Organism gain entry
- Bright redness present at the advancing margins and slightly raised from the surface

Erysipelas

- The margin is irregular and show acute congestion
- Lymphatics are crowded with streptococci.
- Lymphocyte and mononuclear cells are main inflammatory cells
- No pus formation
- After infection fade away discoloration of skin may remain

Erysipelas


- Clinical features:
- Mostly occur in debilitating and poor health
- Fever of varying degree
- Rose-pink rash
- Vesicles
- May resemble with cellulitis if oedema is present

Difference between cellulitis and erysipelas

s.n.	Cellulitis	Erysipelas
1.Rash	No effect on pressure	Disappear on pressure
2.Margin	Not sharply defined	sharply defined
3.Vesicle	Contains pus	Contains serum
4.Pinna	Not possible	Spread into pinna (Milian's ear)



Complications

- If diabetic gangrene occur
 - lymphoedema
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Treatment

- As previously stated, complications of erysipelas usually are not life threatening, and most cases resolve after antibiotic therapy without sequelae. However, prompt treatment of the condition is crucial because of potentially rapid progression. Aside from administration of antibiotics, patient care includes the following:
 - Symptomatic treatment of aches and fever
 - Hydration (oral intake if possible)
 - Cold compresses
 - Elevation and rest of the affected limb: Recommended to reduce local swelling, inflammation, and pain
 - Saline wet dressings: Should be applied to ulcerated and necrotic lesions and changed every 2-12 hours, depending on the severity of the infection



Treatment

- **Surgical care**
- Debridement is necessary only in severe infections with necrosis or gangrene.
- **Inpatient care**
- Hospitalization for close monitoring and intravenous antibiotics is recommended in severe cases and for infants, elderly patients, and patients who are immunocompromised. It is also recommended for patients who are unlikely to complete the course of treatment as a result of psychosocial or economic reasons or significant underlying disease.

QUESTION



A close-up photograph of a person's hand holding a small, square, cream-colored sticky note. The note is held between the thumb and index finger, with the rest of the hand visible in the background. The note has the words "Thank You" written on it in a black, cursive script. The background is a plain, light-colored surface, possibly a wall or a piece of paper. On the far left edge of the image, there is a vertical bar with several colored segments: black, white, yellow, and red.

Thank
You