Diseases of External ear

Presented by:

PROF. DR. G.H.M.SHAHIDUL HAQUE.
Professor & Head, ENT
CARe Medical College

OTITIS EXTERNA

- What is otitis externa ?
- An acute or chronic reaction of the whole or a part of the skin of the external ear arising from local or general causes, or from a combination of both.

Classification of otitis externa

According to cause

- 1. Infective group:

- **Bacterial :-**

  Localised otitis externa (Furuncle).

  Diffuse otitis externa.

  Otitis externa malignans.

- **Fungal**:- Otomycosis.
- **Viral**:- Herpes Zoster oticus.

  Myringitis bullous haemorrhagica.

Otitis Externa (Cont.)

2. Reactive group:

- Eczematous otitis externa.
- Seborrhoeic otitis externa.
- Neurodermatitis.

Furuncle of the external ear.

Furunculosis

Def: A staphylococcal infection of the hair follicle in the cartilaginous part of the external auditory canal.

Site : cartilaginous part.

Precepitating factors :- trauma of the external auditory canal due to

a) Pricking

b) Abrasion of the EAC during cleaning of the ear.

❖Diabetic & immuno suppressed patients are more vulnerable.

Furunculosis (cont.)

Aetiology : Staphylococcal aureus.

Clinical features :

- Sever pain in the ear.
- Discharge per ear.
- On movement of pinna - painful.
- On chewing pain increases.
- External auditory canal swollen and red.
- Post auricular & pre auricular lymph node are palpable and tender.
- Post auricular groove may be obliterated.

Furunculosis (cont.)

Investigations:

- **No investigation is required.**
- **RBS - in case of repeated furunculosis and uncontrolled condition.**

Differential Diagnosis

1. Mastoiditis
2. Herpetic lesion
3. Exostosis.

Difference between furuncle and mastioditis.

Furuncle	Mastoiditis
Sudden onset	Gradual onset
No previous H/O otorrhoea	H/O otorrhoea present.
No deafness unless canal occluded.	Deafness present.
Earache more severe	Less severe earache.
Terderness on manipulation of the auricle.	Non tender.
TM is normal & intact.	TM perforated.
Post auricular groove obliterated.	Deepened.
No radiological change in mastoid bone.	Radiological change of mastoid bone showing bone erosion.

Treatment of furunculosis.

- *Cap. Flucloxacilin (500mg) 6 hourly for 7-10 days.*
- *Tab. Diclofenac sodium (50 mg) 12 hourly after meal .*
- *Local heat application- By warm cloth.*
- *10% Ichthammol in glycerin pack in the EAC for 24hours. Glycerin reduces the oedema by hygroscopic action. Ichthammol act as antiseptic .*

If DM is uncontrolled – control it .

Treatment (cont.)

- Surgical treatment:

If there is abscess formation:

- Incision & drainage.
- Toileting of the EAC.
- Local application of Neomycin ointment.

.

Furunculosis (cont.)

Complications:

- Perichondritis
- Cellulitis.
- Post auricular lymphadenitis

Otomycosis

Otomycosis

Definition:

Otomycosis is the fungal infection of the external auditory canal.

Predisposing factors:

- Diabetis mellitus.
- Immunosupression.
- Topical antibiotic drop (wide spread use).
- CSOM.
- Rainy season.
- Swimming in the dirty water.

Otomycosis

Causative fungus:

- Aspergillus niger.
- Aspergillus fumigatus.
- Candida albicans.

Otomycosis (cont.)

Clinical features:

Symptoms:

- Intense Itching.
- Discomfort or pain in the ear.
- Watery discharge with a musty odour.
- Deafness (mild).

Otomycosis (cont.)

Signs:

- The fungal mass may be seen like a piece of wet newspaper.
- It may be black (A. niger), pale blue or green (A. fumigatus) and white creamy deposite (Candida).
- Meatal skin appears swollen, red and oedematous.

Otomycosis (cont.)

Investigations:

- The fungal mass can be seen under microscope.
- Granules containing the mycelium, hyphae and spores.
- Fasting blood sugar can be checked.
- Culture of fungus

Treatment of otomycosis

❖Removal of the fungal mass by :

-Suction

-Forceps

-Mopping

-Syringing

❖Fungicides:

- Clotrimazole 1% cream 3 times daily for 15 days.
- Econazole 1% drop or cream.
- 2% Salicylaic acid in alcohol.

Treatment of otomycosis (cont.)

- Oral antibiotic:

  Cap. Amoxicillin (500mg) 8-hourly for 7-10 days.

- Analgesics:

  Diclofenac sodium (50 mg) 12hourly after meal.

- Antihistamine.

- Advices.

PERICHONDRITIS

PERICHONDRITIS

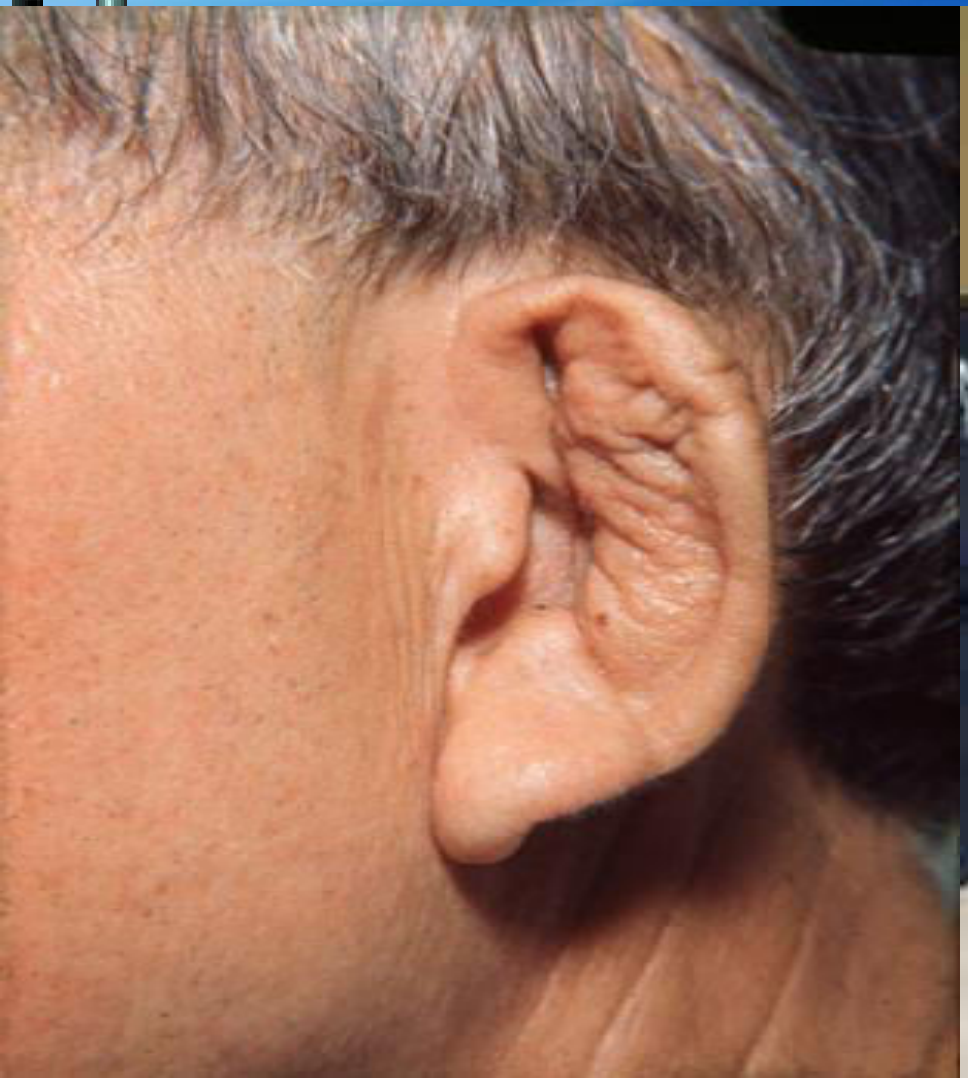
Definition:

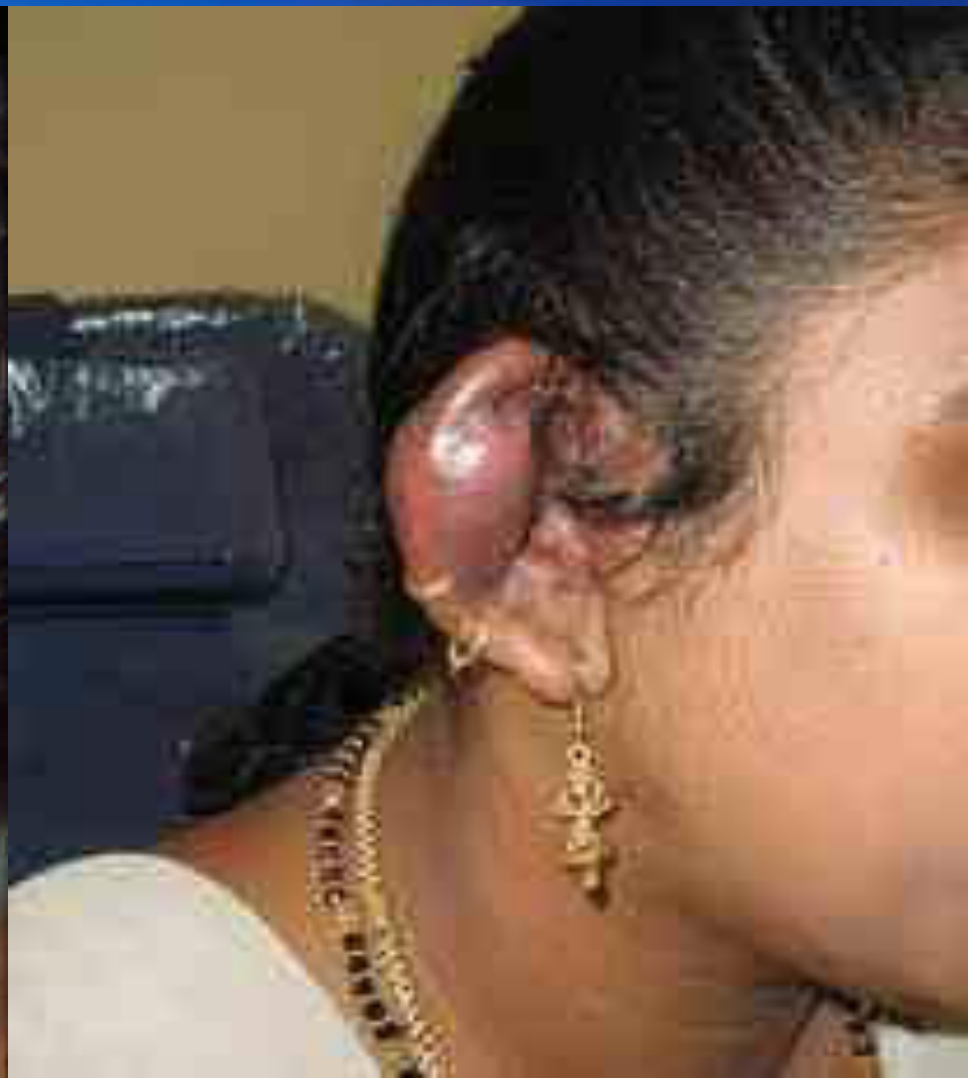
Inflammation of the perichondrium of the auricle or the pinna.

Etiology:

- Trauma- agricultural, insect bite, Ear piercing.
- Infection- furuncle, cellulitis.
- Ear surgery.
- Acid Burn, Radiation.

PERICHONDRITIS
Cont……





PERICHONDRITIS (cont.)

Organisms:

- Pseudomonas aurogenosa- 75-90%
- Staphylococcus aurous- 50%
- E. coli.

PERICHONDRITIS (Cont.)

Pathogenesis:

The perichondrium becomes detached from the cartilage due to edema in between the perichondrium & cartilage and the cartilage is necrosed because cartilage gets blood supply from the perichondrium.

Pericondritis (Cont.)

Clinical features:

1. Pinna is uniformly enlarged, thickened, red and puffy.
2. Pinna may be extremely tender and hot.
3. Edema may spread over post-auricular region.
4. General features- Fever, headache and general malaise.

PERICHONDRITIS (cont.)

Medical treatment:

Antibiotic:

-Ciprofloxacin (500mg) 12 hourly for 10 day.

Severe cases:

- Intravenous ciprofloxacin (200mg in 100 ml bag) or Gentamycin (80 mg) I/m 8hourly for 7-10 days.

Analgesics:

-Diclofenac sodium (50mg) 12 hourly after meal for 5-7 days.

PERICHONDRITIS (cont.)

Surgical treatment :

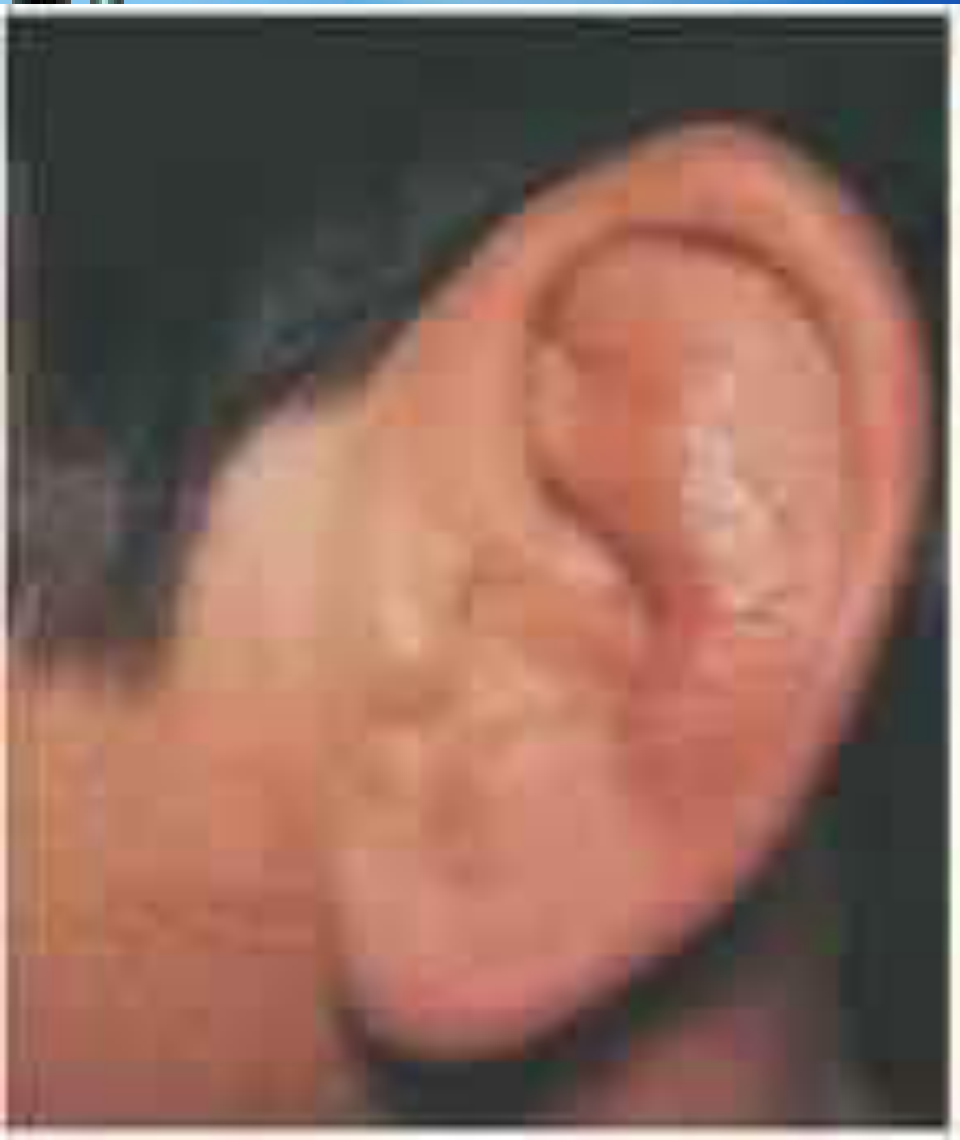
- If pus is formed- Incision and debridement of the necrosed cartilage under G/A.

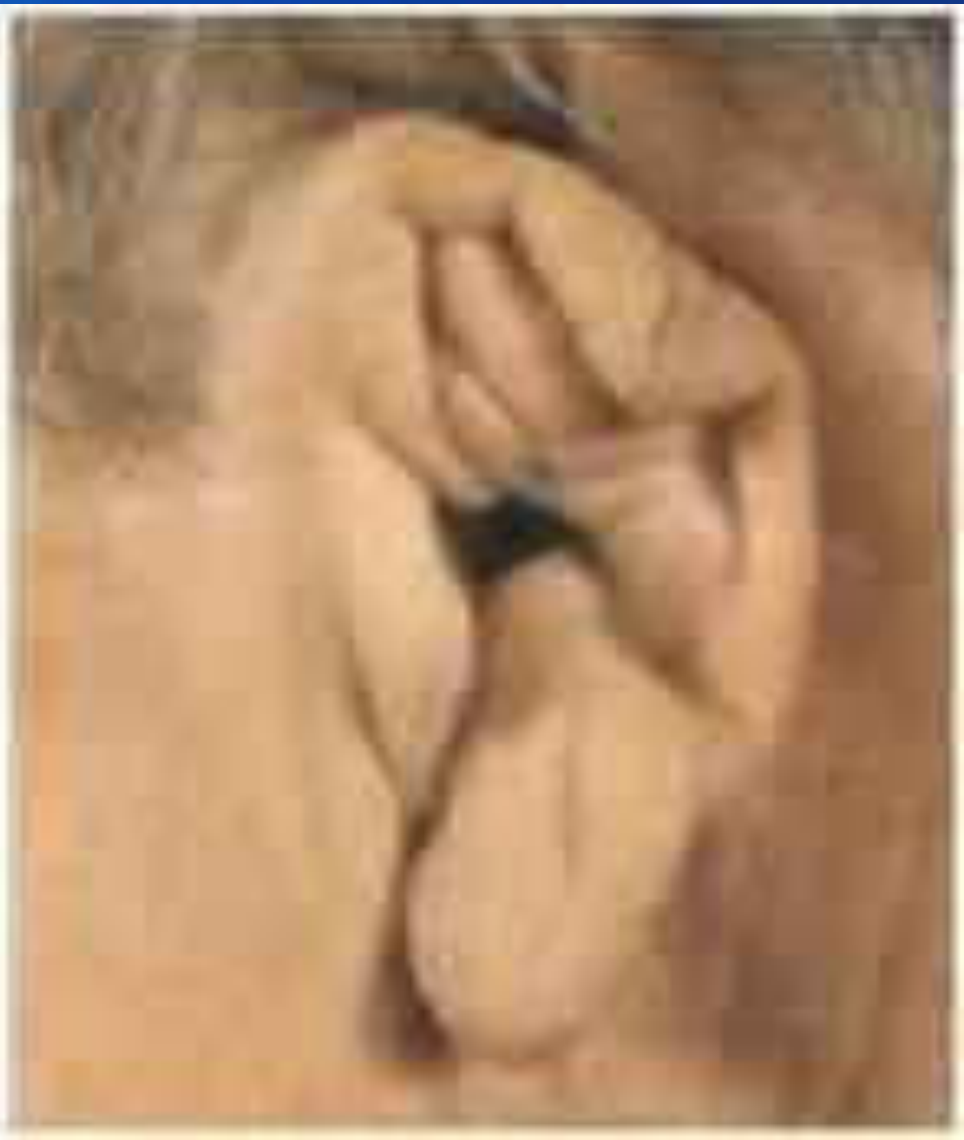
PERICHONDRITIS (cont.)

Complications:

- Deformity & shrinkage of pinna.
- Septicemia.

PERICHONDRITIS (cont.)





Otitis Externa Malignans

Otitis Externa Malignans

Definition:

A pseudomonas fatal infection occurring in elderly diabetic patients and in the immunosuppressed individual.

Otitis Externa Malignans (cont.)

✓ Aetiology:

- Pseudomonas Pyocyanea.
- Old age.
- Diabetic patient.

➢ It behaves like a malignant process and destructs the tissue & bone of the external auditory canal.

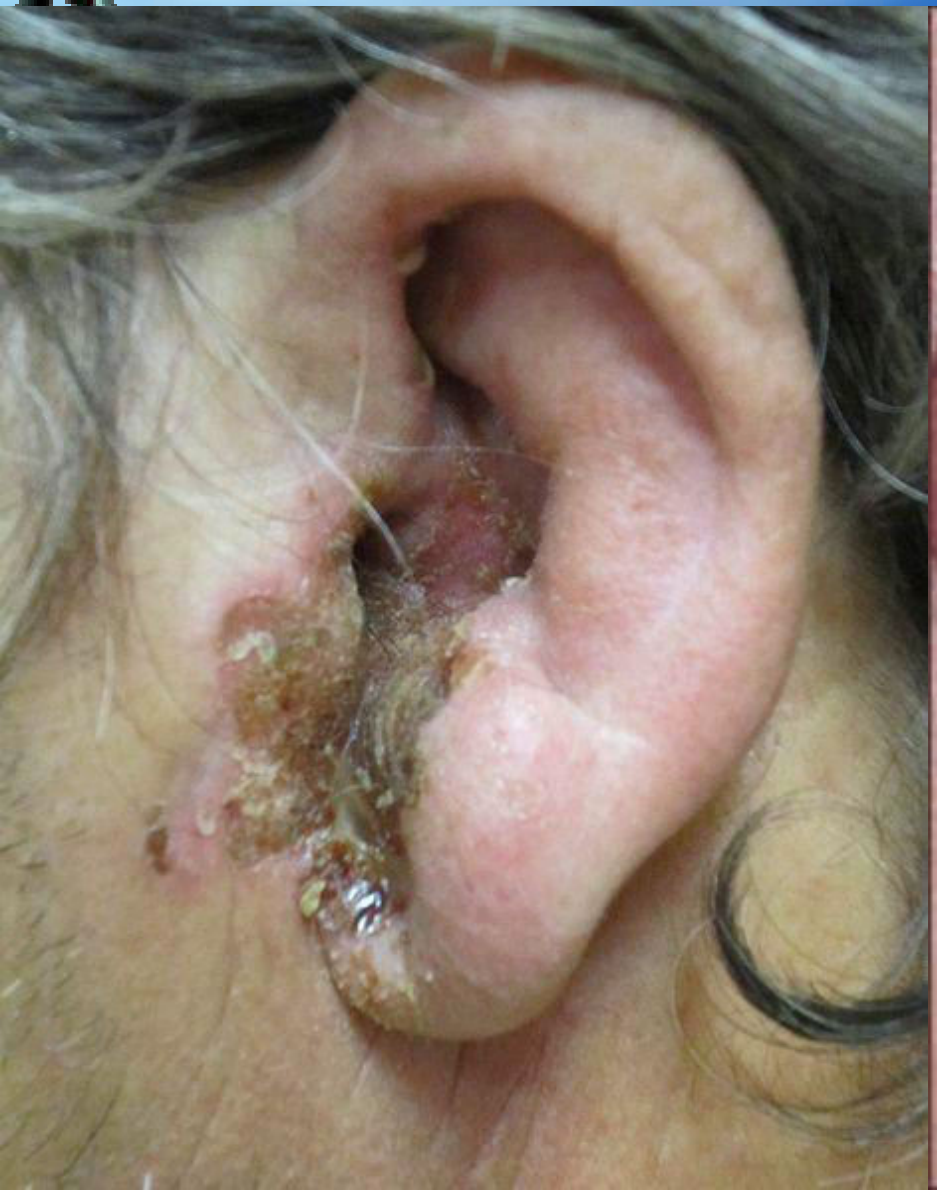
➢ Extension of the infection may cause palsy of multiple cranial nerves.

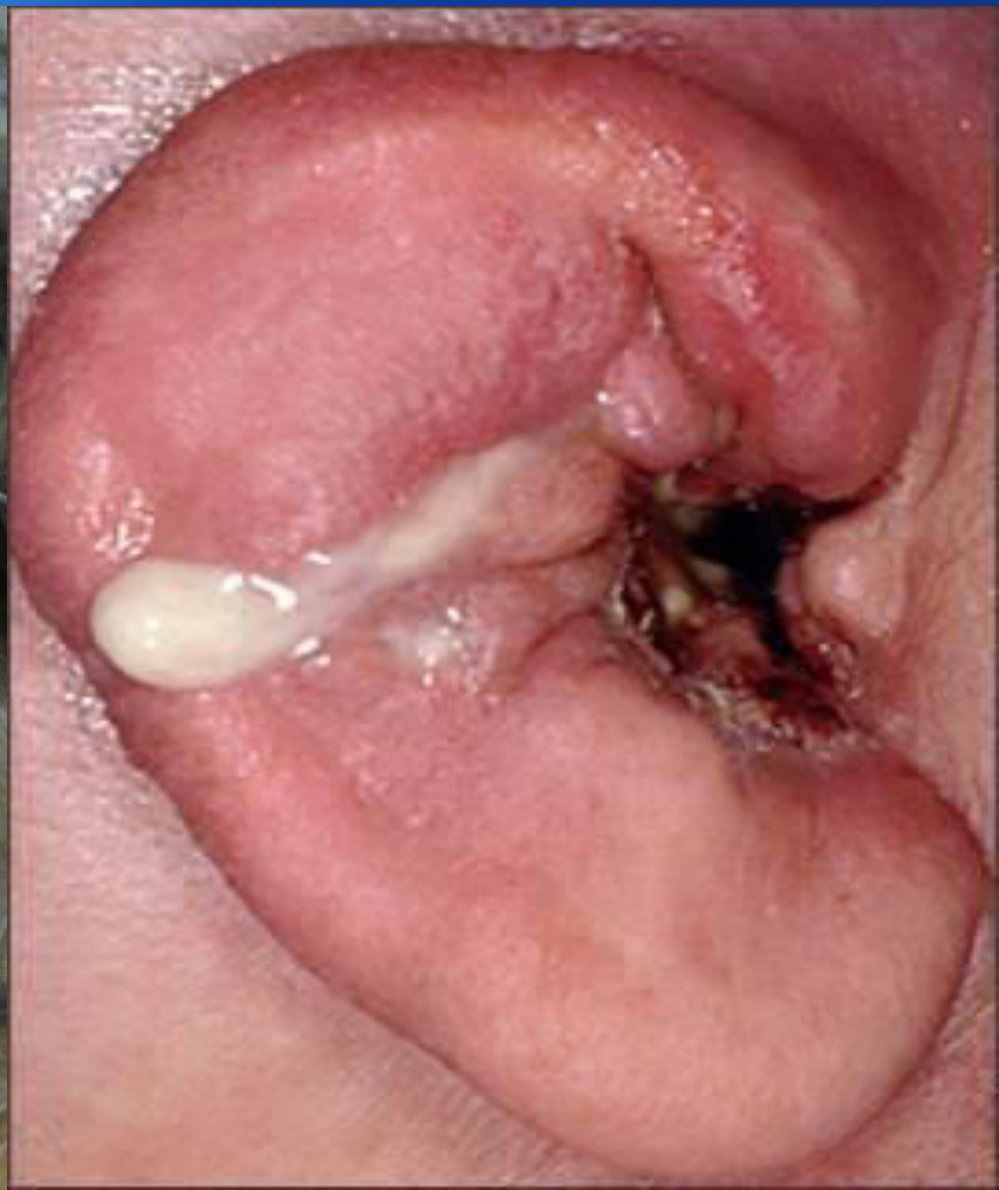
Otitis Externa Malignans (cont.)

Clinical features :

- Pain in the ear- may be severe and resistant to analgesics.
- Discharge – Seropurulent.
- Granulation tissue - may be seen in the floor of the meatus.
- Multiple cranial nerves palsy- v , vi , vii , ix , x , xi & xii .

Otitis externa malignans (cont.)





Otitis Externa Malignans (cont.)

Treatment:

1. Medical Treatment:

- Ceftriaxone 1 gm IV- 12 hourly for 4-6 weeks.
- Gentamycin 80 mg IM - 8 hourly for 10 days.

✓(check renal function).

✓(Control diabetes).

- Analgesics: Cap. Tramadol Hydrocloride (50 mg) - 8 hourly
  Inj. May be given.

2. Surgical Treatment:

- Debridement of the granulation tissues.
- Radical mastoidectomy may be done.

Prognosis: Not good.


THANK YOU ALL