Parotid Gland And Tumour

DR SUDHIR KUMAR SINGH
Salivary Glands
Parotid Gland
Parotid Space
Parotid gland
Facial Nerve- “Pes Anserinus”

Diagram illustrating the branches of the Facial Nerve
Facio-venous plane of PATEY
Identify the sketch......
Identify the sketch.....
Identify the sketch......
Parotid tumors

BENIGN

- Pleomorphic adenoma
- Warthin’s tumor

MALIGNANT

- Mucoepidermoid carcinoma
- Adenoid cystic carcinoma
- Acinic cell carcinoma
- Adenocarcinoma
- Squamous cell carcinoma
Pleomorphic adenoma

- Also k/a “Mixed Tumor”

- Most common benign tumor of salivary glands - 80%

- Neoplastic proliferation of glandular tissue with myoepithelial component

- Distribution:
  - Parotid (84%) > submandibular (8%) > lingual (0.5%)

- F:M = 3:1
Clinical presentation

- Smooth firm lobulated mobile swelling
- Commonly arise near the tail of parotid
- In superficial part
Clinical presentation.....

- If tumor present in Deep Lobe
  - Extend through stylomandibular tunnel
  - Pushes tonsils, pharynx and uvula
  - Pressure effect may cause dysphagia
Long term sequel - Malignant change

- Recent increase in size

- Pain - cause
  - Capsular distention
  - Salivery duct obstruction
  - Infiltration of nerve
  - Tumor necrosis

- Nodularity

- Involvement of skin, lymph nodes, facial nerve and masseter muscle

- Restriction of jaw movement
Clinical examination

- Smooth firm lobulated mobile swelling
- Positive curtain sign
- Lifted ear lobule
- Involvement of facial nerve - palsy
- Bimanual palpation - for deep lobe
- Opening of the stensons duct
Parotid duct palpation
Diagnosis

- Fine needle aspiration cytology
- Core needle biopsy
- Ultrasonography
- CT scan
- MRI scan
USG- hypoechoic lobulated lesion
CT scan
MRI scan

Pleomorphic Adenoma
Management

▪ Surgical excision of tumor
  ➢ Superficial parotidectomy - PATEY’S operation
  ➢ Total parotidectomy

▪ Complication:
  ➢ Facial nerve injury
  ➢ Recurrence 5-50%
Warthin’s tumor

- Also k/a Adenolymphoma or Papillary Cystadenolymphomatosum
- Benign tumor occur in only parotid gland.
- 2\textsuperscript{nd} MC benign tumor
- Bilateral 10-15%
- M:F= 4:1
- Association:
  - Cigarrete smoking
  - Irradiation
Warthin’s tumor........

- Often multicentric
- Typically heterogenous on imaging ie having cystic component frequently
- On T-99 pertechnetate scan- “Hot spot” due to high mitochondrial content, a characteristic feature.

Management:
- Excision of tumour
- Risk of recurrence –nil
- No malignant change
Mucoepidermoid tumor

- Commonest malignant tumor
- Most common in parotid gland
- Etiology: radiation
- Early stage - painless gradually progressive mass
- Later on - may involve facial nerve
- On the basis of cellular characteristic: 3 grade
  - Low grade
  - Intermediate grade
  - High grade
Mucoepidermoid tumor....... 

- Management:
  - Low grade –
    - WLE or superficial parotidectomy
  - High grade –
    - Radical parotidectomy with neck node dissection and adjuvant therapy
Adenoid cystic carcinoma

- Slow growing high malignant tumor
- High affinity to perinural extension

Management:
- Radical parotidectomy with adjuvant cth
- Fast neutron therapy
Parotid surgery

- Superficial Parotidectomy
- Total Conservative Parotidectomy
- Radical Parotidectomy
Intraop- identification of facial nerve

- **Tragal Pointer** of CONLEY’S- tip of inferior portion of cartilaginous canal
- Tracing the tendinous insertion of posterior belly of digastric muscle
- Nerve just lateral to **styloid process**
- **Hamilton bailey technique**- tracing from distal to proximal
- By use of **nerve stimulator**
Indication of facial nerve sacrifice

- Preoperative weakness or paralysis of nerve
- Evidence of gross invasion
- Tumor transgressing from superficial to deep part
Complication of parotidectomy

- Facial nerve injury
- Haemorrhage
- Salivary fistula
- Flap necrosis
- Frey’s syndrome
- Injury to great auricular nerve
Frey’s syndrome

Nerve supply

- Parasympathetic:
  - Secreto-motor- from otic ganglion – postganglionic fibre via auriculo-temporal nerve

- Sympathetic:

- Sensory:
  - Great auricular nerve – to parotid fascia
Frey’s syndrome......

After injury

- secretomotor fibres from auriculotemporal nerve grow out
- joins with distal end of great auricular nerve.
- Also k/a “Gustatory Sweating”
THANKS