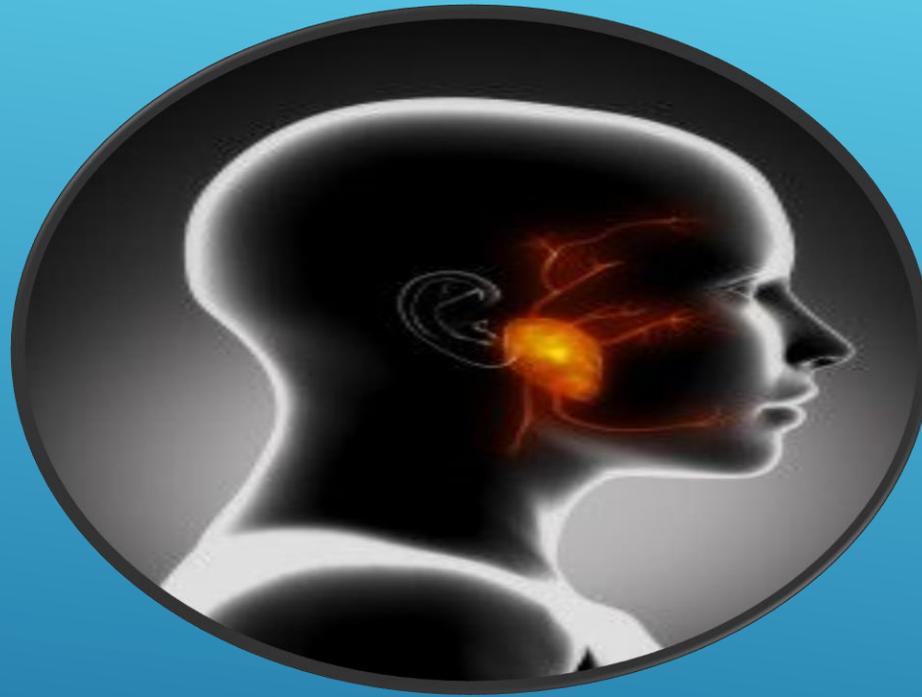


# Salivary Gland Neoplasms

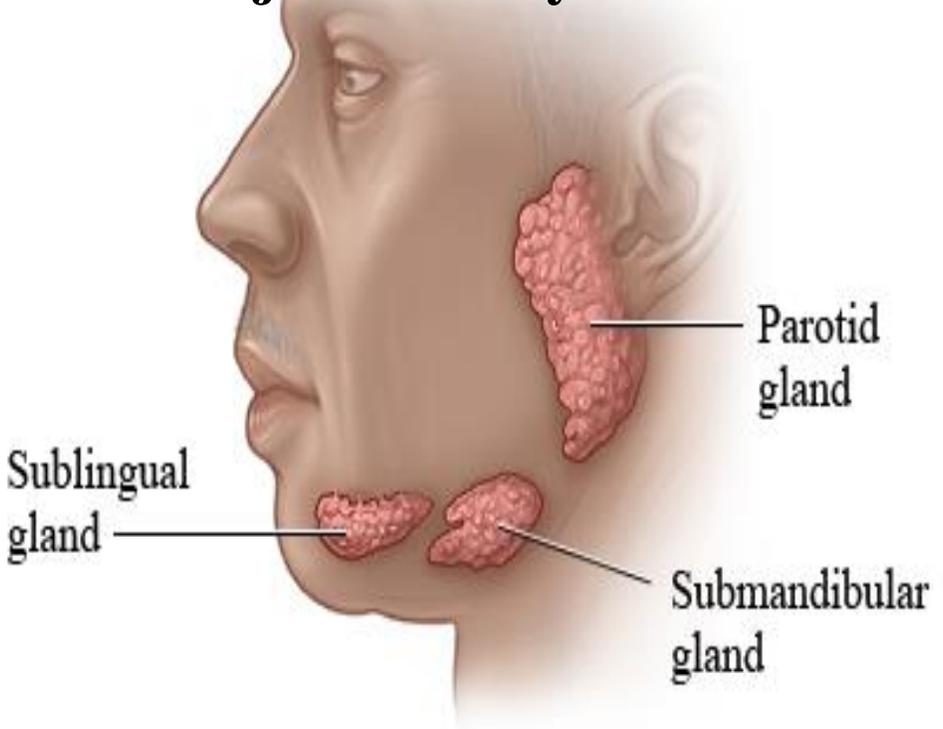


**Dr. Sohail Bakkar**

***Asst. Prof. of Endocrine Surgery***

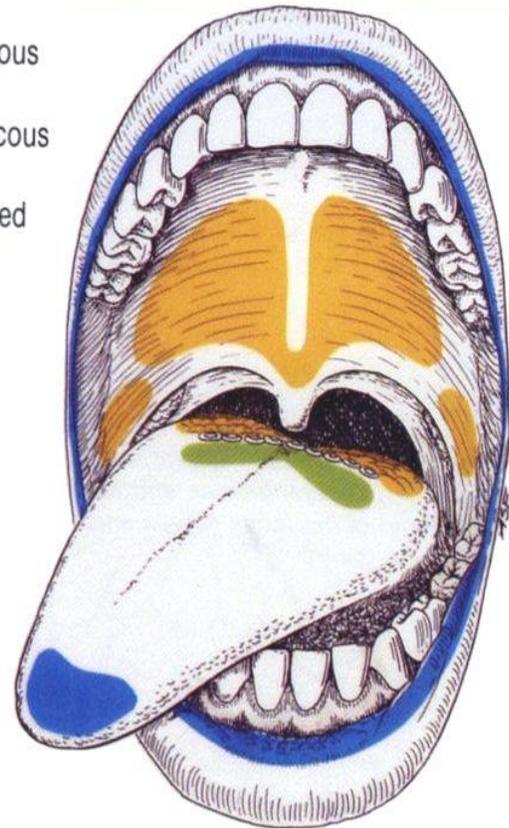
***The Hashemite University***

# Major Salivary Glands



# Anatomy - minor salivary gland

- Serous
- Mucous
- Mixed



**Uncapsulated;**  
named by  
location

< 2% of all head & neck tumors

Most commonly “Parotid gland”

2<sup>nd</sup> “Minor salivary gland- Junction between the hard & soft palates”

80% of salivary neoplasms occur in the parotid gland

80% of all salivary neoplasms are benign

## CLASSIFICATION

### BENIGN TUMORS –

Pleomorphic adenoma.  
Monomorphic adenoma.

Most common benign

2<sup>nd</sup> ; Warthin’s tumor/ Adenolymphoma

### MALIGNANT TUMORS –

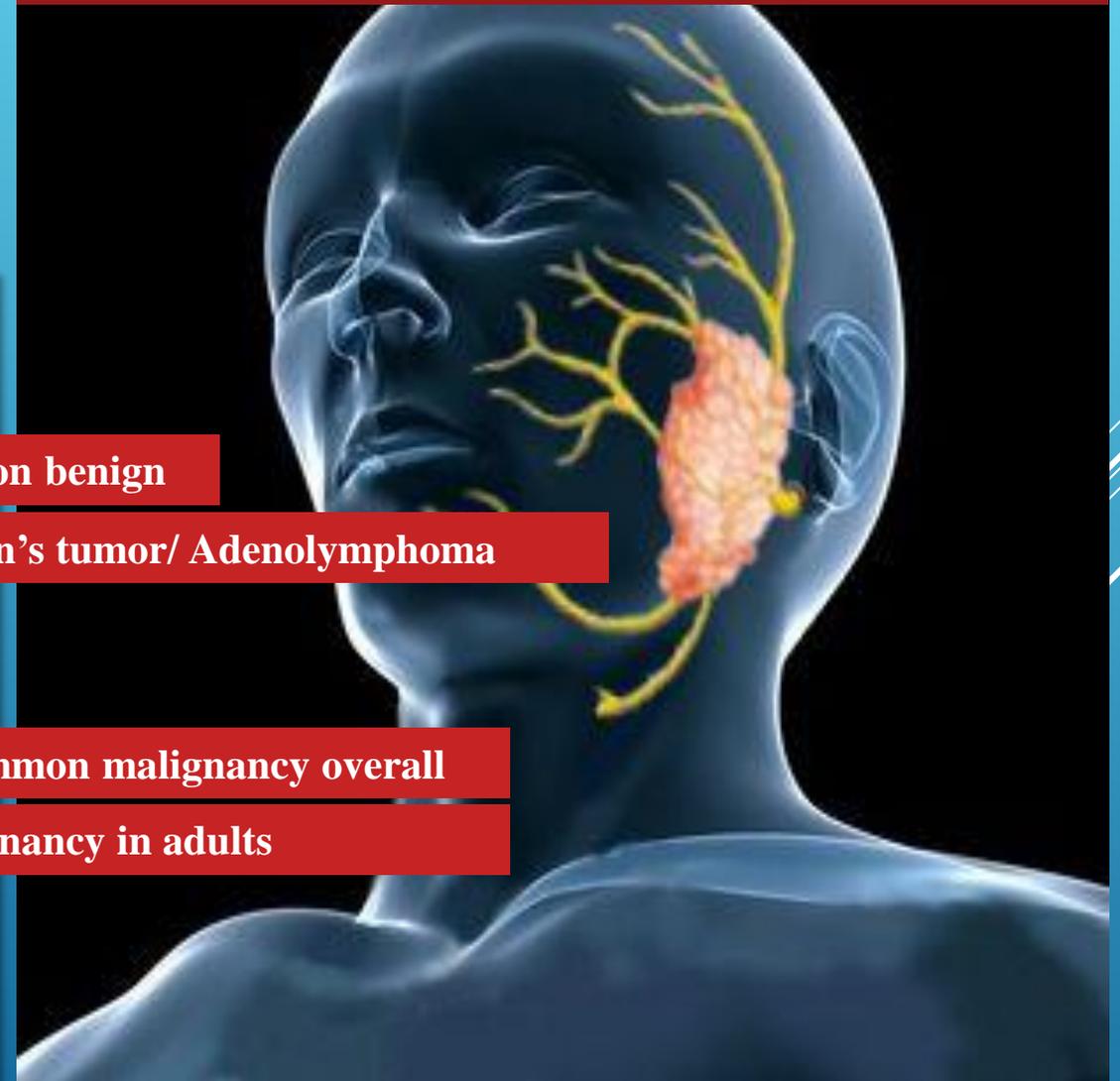
Mucoepidermoid carcinoma.  
Adenocystic carcinoma.  
Acinic cell carcinoma.

Carcinoma ex pleomorphic adenoma  
(malignant mixed tumor)

2<sup>nd</sup> malignancy in pediatrics

Most common malignancy overall

2<sup>nd</sup> malignancy in adults



<b>Salivary Gland</b>	Malignancy Rate	Incidence of Tumor
<b>Parotid</b>	20%	80%
<b>Submandibular</b>	50%	15%
<b>Sublingual &amp; Minor</b>	70%	5%

# Pleomorphic adenoma

Most commonly occurs in the parotid gland; Warthin's tumor occurs exclusively in the parotid

**Asymptomatic, well-circumscribed & slow-growing**

**Young and middle-aged adults**

**Slight male predominance**

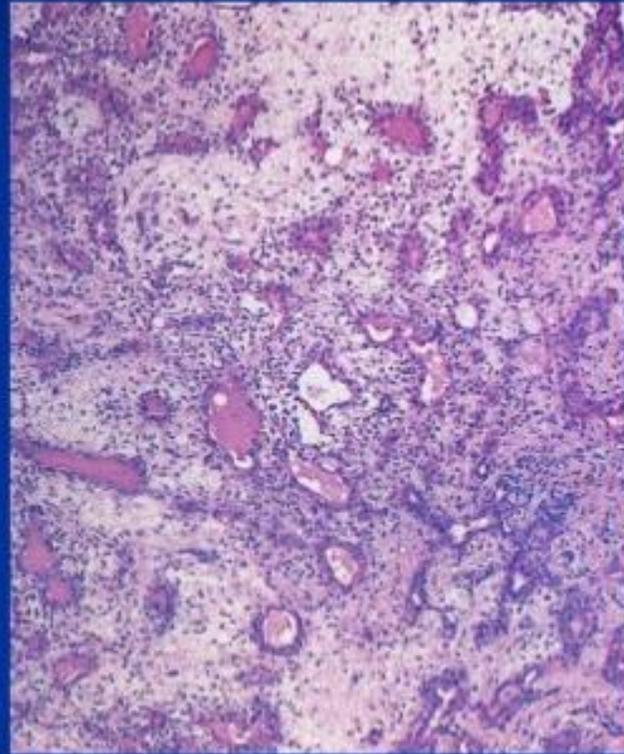
**Rubbery-hard, does not fluctuate and of limited mobility  $\neq$  lymph node**

**Risk of malignancy is  $< 5\%$**



# Pleomorphic Adenoma

- Histology
  - Mixture of epithelial, myoepithelial and stromal components
  - Epithelial cells: nests, sheets, ducts, trabeculae
  - Stroma: myxoid, chondroid, fibroid, osteoid
  - No true capsule
  - Tumor pseudopods



# SURGERY

## PAROTID GLAND:

• Superficial parotidectomy: Implies complete removal of the parotid gland superficial to the plane of the facial nerve

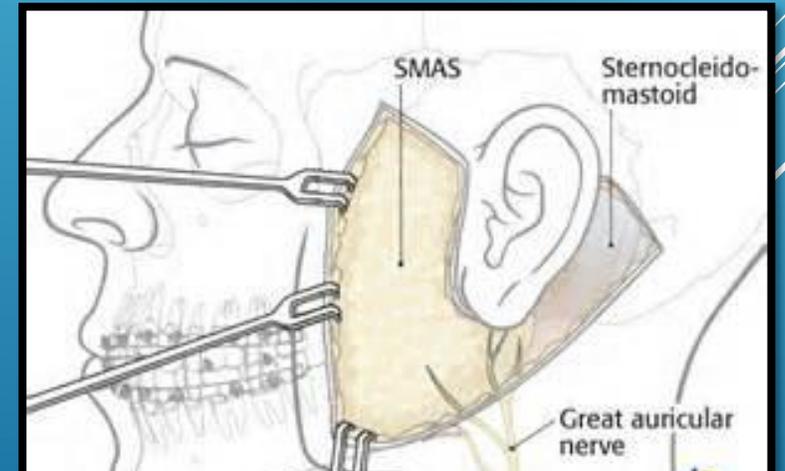
### **Patey's procedure**

- minimum standard surgical procedure. **Pseudopods**
- “treatment of choice” for tumors in the superficial lobe, which are not involving the facial nerve.
- avoid enucleation and excision biopsy because it greatly increases the likelihood of recurrence (up to 80%) and nerve damage

**Lesions involving the deep lobe: conservative parotidectomy  
“preserving all named branches of the facial nerve”**

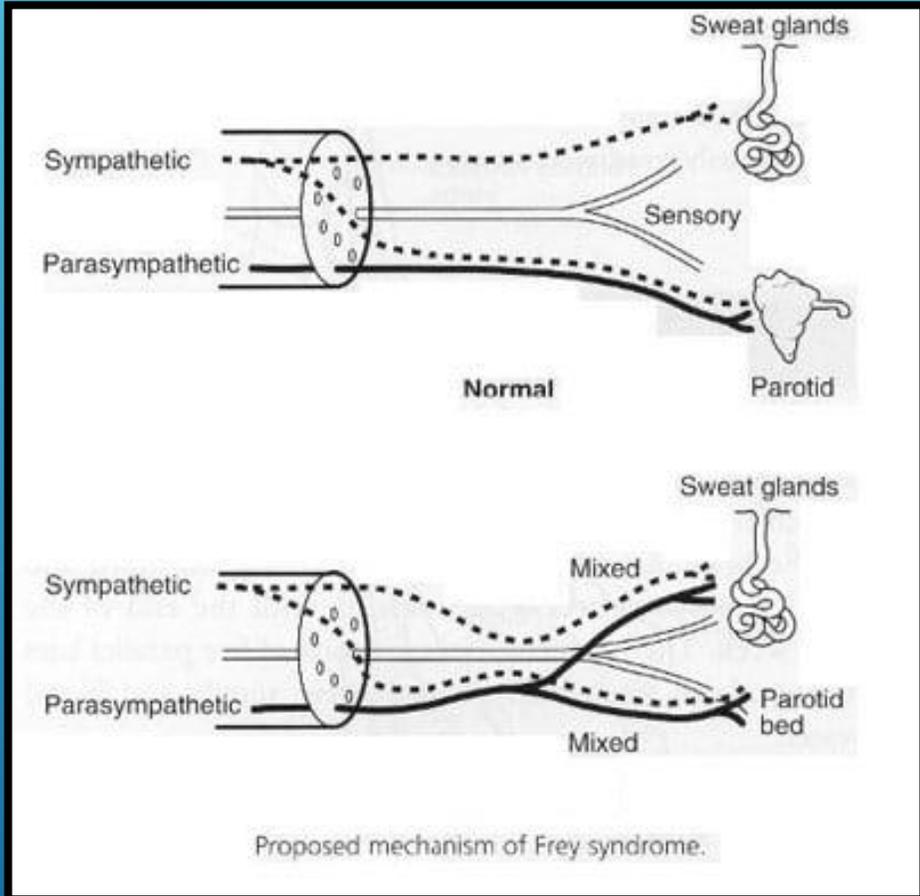


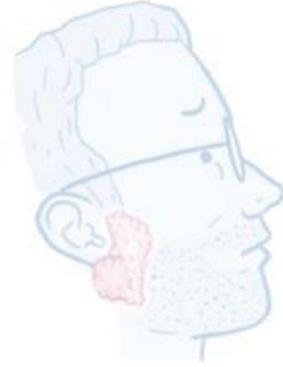
**Transient Facial palsy 40%**



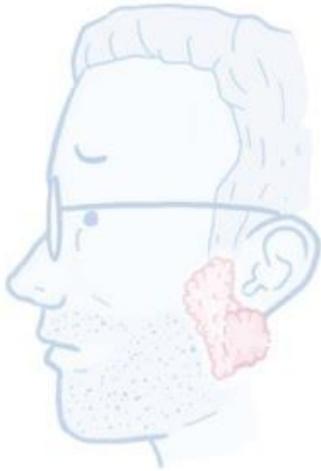
**Most common nerve injury**

# Frey's Syndrome / Auriculotemporal Syndrome / Gustatory Sweating & Flushing





# WARTHIN TUMOR



# Warthin's Tumor

- Warthin's tumor (benign papillary cystadenoma lymphomatosum)  
Unique neoplasm occurs exclusively in parotid gland consist of (epithelial +lymphoid

**Above the age of 50 years**

**Historically more common among males**

**Recently: more common among females / Cigarette smoking**

**Soft and fluctuant**

**Most common location: inferior pole of superficial lobe (parotid tail)**

**Multifocality/ Bilaterality 10%**

**Risk of malignancy 0.3%**



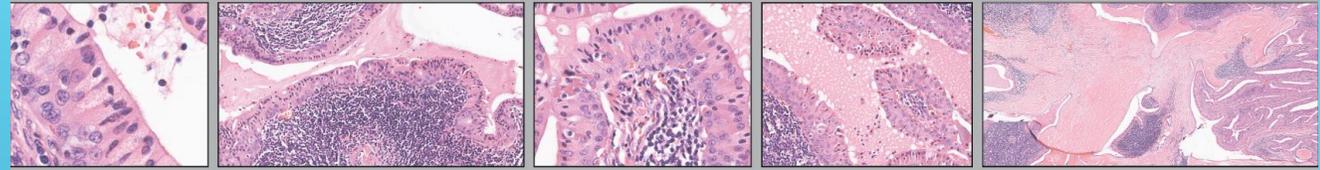
# MANAGEMENT

- Tumor is **RADIO RESISTANT**
- **SURGERY** :
- **ENUCLEATION –avoided.** High recurrence.
- **TOC : SUPERFICIAL PAROTIDECTOMY –  
PATEY'S OPERATION** ( if supf lobe alone involved)
- **TOTAL CONSERVATIVE PAROTIDECTOMY** (If both lobes involved)

**FACIAL NERVE IS PRESERVED**

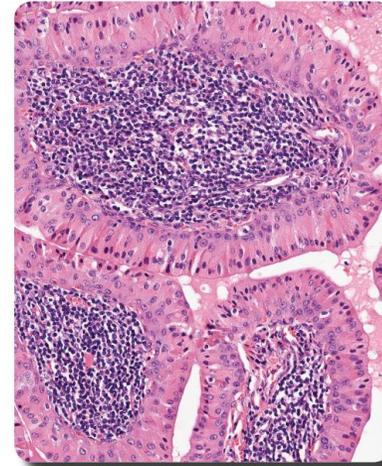


Gross appearance of Warthin tumor of parotid gland. The presence of multiple large cystic spaces is characteristic of this lesion.

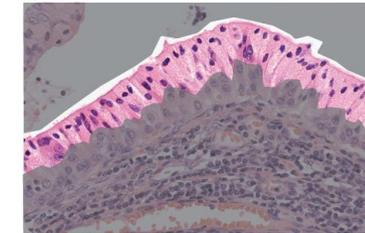


## WARTHIN'S TUMOR : *Key Histologic Findings*

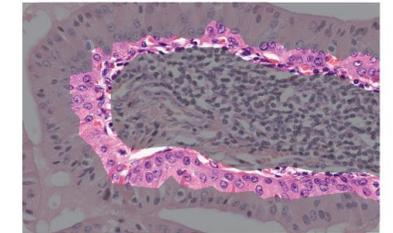
**PAPILLARY ARCHITECTURES** – the prominent WT papillary projections consist of two **oncocytic** epithelial layers overlying a lymphoid stroma with a fibrovascular core.



**OUTER ONCOCYTIC (LUMINAL) LAYER** – these ciliated, columnar cells display pseudostratified nuclei, with plump, abundant amounts of eosinophilic cytoplasm (due to the mitochondria present)



**INNER ONCOCYTIC LAYER** – compressed, cuboidal cells lie just over the lymphoid stroma. The eosinophilic cells have less cytoplasm than their more luminal neighbors



**FIBROUS CAPSULE (NOT PICTURED)** – Warthin's Tumor generally exhibits a **well formed fibrous capsule** separating the lesion from surrounding salivary tissues.

**A  
L  
S  
O**

**LYMPHOID CORE (NOT PICTURED)** – the stroma often organizes into **reactive germinal centers**

**LUMINAL SECRETIONS (NOT PICTURED)** – Eosinophilic secretions will collect within the luminae of the tumor

**No consensus on most appropriate treatment**

**Enucleation is considered acceptable**



**Approach**

**MRI “imaging study of choice”**

**FNAC or US-FNAC**

**“Do not cut into a parotid lump due to the significant risk of implantation and recurrence”**

**Tru-cut biopsy and wedge biopsy are contraindicated**

