

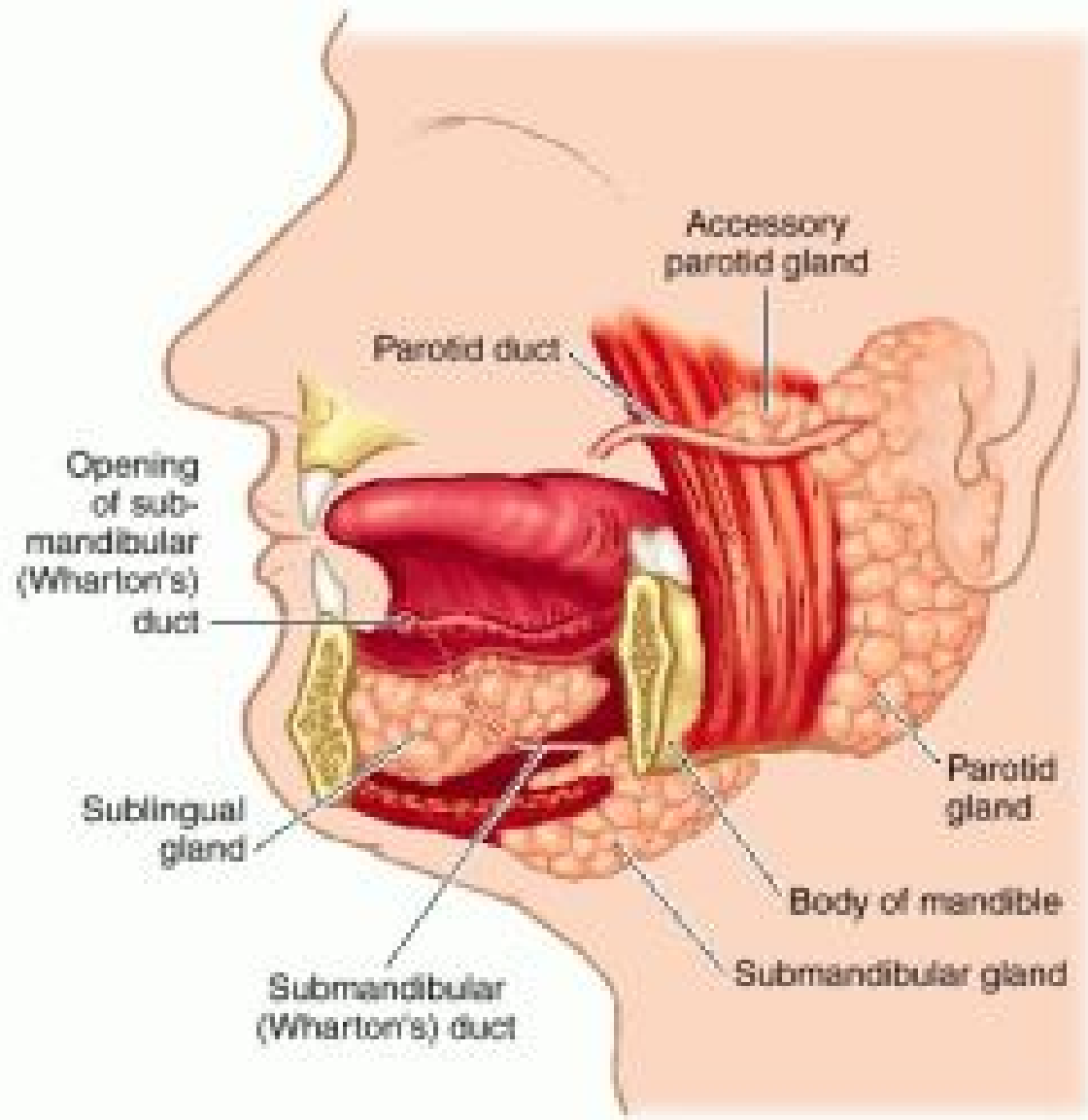
Salivary Gland Tumors

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Objectives

- Review the relevant anatomy of the salivary glands
- Enumerate their common pathologies and discuss the appropriate management for each
- Discuss the different diagnostic and imaging tests important in salivary gland disease



Salivary Gland Tumors

- Comprise 3-6% of all head and neck neoplasms
- Relative incidence of occurrence and malignancy

Tumor	% of Tumors	% Malignant
Parotid	76-85	35
Submandibular	10	50
Sublingual	Very rare	80
Minor	10-20	50

Adapted from Silver, 1999

Clinical Evaluation

Benign/Low-grade	High-grade Malignant
Solitary, movable, non-tender masses	Large, fixed masses
No facial nerve paralysis	Facial nerve paralysis
No regional metastases	Regional metastases
	Invasion of surrounding structures

Imaging

- Computed tomography scan
- Magnetic resonance imaging
 - For distinguishing non-salivary/neurogenic tumors of the parapharyngeal space from deep lobe parotid tumors
 - Can distinguish benign from malignant only in cases with obvious invasion of surrounding tissues or with regional metastases

Histopathologic Examination

- Open incisional biopsy
 - Contraindicated for simple masses in the parotid
 - Small sample taken for suspicious high-grade malignancy
- Core-needle biopsy – not recommended
- Fine-needle aspiration biopsy
 - Helps direct type and extent of surgery
- Parotidectomy – grand biopsy

Case Summary

- 56/M
- 2 year history of bilateral pre-auricular swelling, non-painful, non-tender
- No other medical problems
- Smoker
- 2 cm pre-auricular mass, slightly movable with no skin changes
- No palpable neck masses

Pleomorphic Adenoma

- Benign mixed tumor
- Most frequent salivary gland tumor
 - 65% of all parotid neoplasms
- Encapsulated lesions with glandular and connective tissue elements
- Pseudopods may remain as a nidus for recurrence

Adenolymphoma

- Warthin's tumor, papillary cystadenoma lymphomatosum
- Benign lesions which occur only in the parotid
- 6-10% of parotid tumors
- Frequently bilateral, may be multifocal
- Occur often in older patients

Mucoepidermoid Carcinoma

- Most common malignant salivary gland tumor
- 50% of parotid malignancies
- High-grade tumors are prone to local recurrence and distant metastases

Adenoid Cystic Carcinoma

- Cylindroma
- Most common malignancy in the submandibular and minor salivary glands
 - 35-40%
- 7% of parotid malignancies
- Slow growth
- Tendency for perineural spread

Adenoid Cystic Carcinoma

- Lymph node metastases in 30%
- Distant metastases in 50%
- Favorable short-term prognosis
 - 75% 5-year survival
 - Versus 30% in 10 years and 13% in 20 years
- Prognosis correlated with tumor size, stage, grade and histopathologic subtype

Malignant Mixed Tumor

- Carcinoma ex pleomorphic adenoma
- Most often develops from a long-standing pleomorphic adenoma
- Most frequent in the parotid
- Lymph node metastases in 15%
- Distant metastases in 30%
- 50% 5-year survival goes down to 20% at 15 years

Acinic Cell Carcinoma

- Uncommon low-grade malignancy
- Occur mainly in the parotid
- Lymph node metastases in 10%
- Occasional distant metastases
- 75-90% 5-year survival decreases to 55-60% at 15 years
- Prognosis related to tumor extent at initial presentation

Adenocarcinoma

- Malignant salivary gland tumors that do not fall under previous classifications
- 10-15% of parotid malignancies
- Divided into low-, intermediate- or high-grade

Squamous Cell Carcinoma

- Primary SCC is extremely rare
- In the parotid, usually metastatic lesions from primary tumors in the skin of the upper two thirds of the face
- Difficult to distinguish primary SCC in the submandibular and minor salivary glands from cervical metastasis or primary tumors in mucosal sites

Case Summary

- Clinical assessment?
 - Warthin's tumor
- Diagnostics?
 - Fine-needle aspiration biopsy
- Imaging?
 - No need for CT or MRI
- Treatment?
 - Superficial parotidectomy, bilateral

Management

- Surgery
 - Wide local excision for benign and low-grade malignancies; no elective sacrifice of vital structures; no elective neck dissection
 - Radical extirpation for high-grade malignancies; elective neck dissection
- Radiation therapy for unresectable disease or recurrence
- No specific chemotherapy available

Conclusion

- Salivary gland tumors have good prognosis and prolonged clinical courses, even for malignancy.
- Imaging is invaluable in diagnosis and treatment planning.
- Surgery is the mainstay of treatment for salivary gland space tumors.

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