Oral Histology lect **د.عذراء**

Salivary Glands

Major salivary glands

1.Parotid: so-called watery serous saliva rich in amylase, proline-rich proteins

Acini serous acini

Saliva Vol. 25-30%

Main duct called Stenson's duct

2.Submandibular gland: more mucinous

Acini : is mixed acini, serous predominate

Saliva Vol. 60%

Wharton's duct

3.Sublingual: viscous saliva

mixed acini, mucous predominate

Saliva Vol. 5%

duct of Bartholin

Functions of saliva

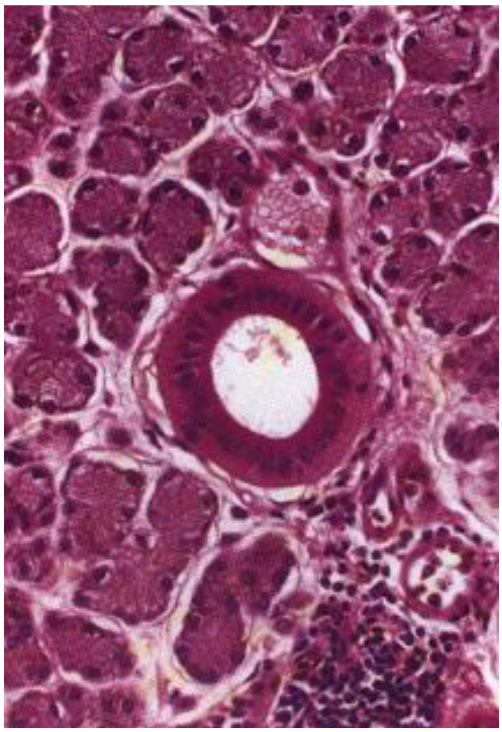
1. **Protection**
2. **Buffering (phosphate ions and bicarbonate)**
3. **Digestion**
4. **Antimicrobial,lysozyme hydrolyzes cell walls of some bacteria,lactoferrin binds free iron and deprives bacteria of this essential element ,IgA agglutinates microorganisms**
5. **Maintenance of tooth integrity,calcium and phosphate ions,ionic exchange with tooth surface**
6. **Tissue repair**
7. **bleeding time of oral tissues shorter than other tissues**
8. **Taste,solubilizing of food substances that can be sensed by receptors**

Salivary glands contain acini and duct system

A.Salivary acini cells include

1. Serous cell (characteristic feature)

- **Dark stain**
- **High -protein, low carbohydrate**
- **rER, lysosome, mitochondria, secretory granule, zymogen granules (amylase)**
- **Watery consistency**
- **Help in Digestion**

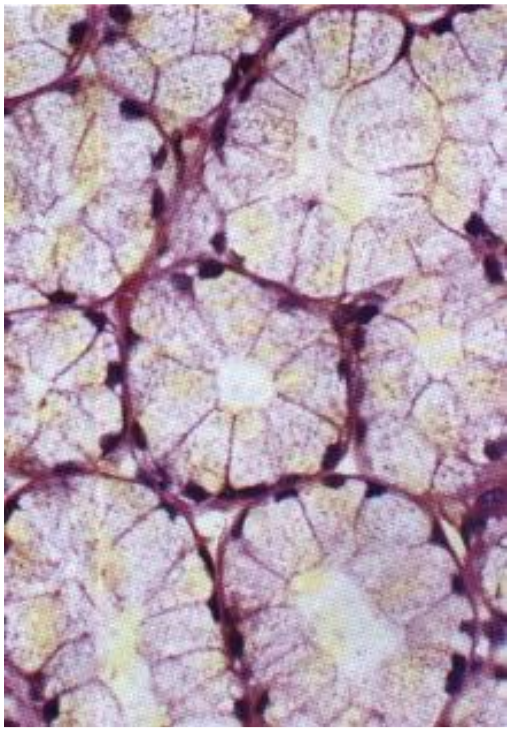


serous acini (pure serous in parotid gland)

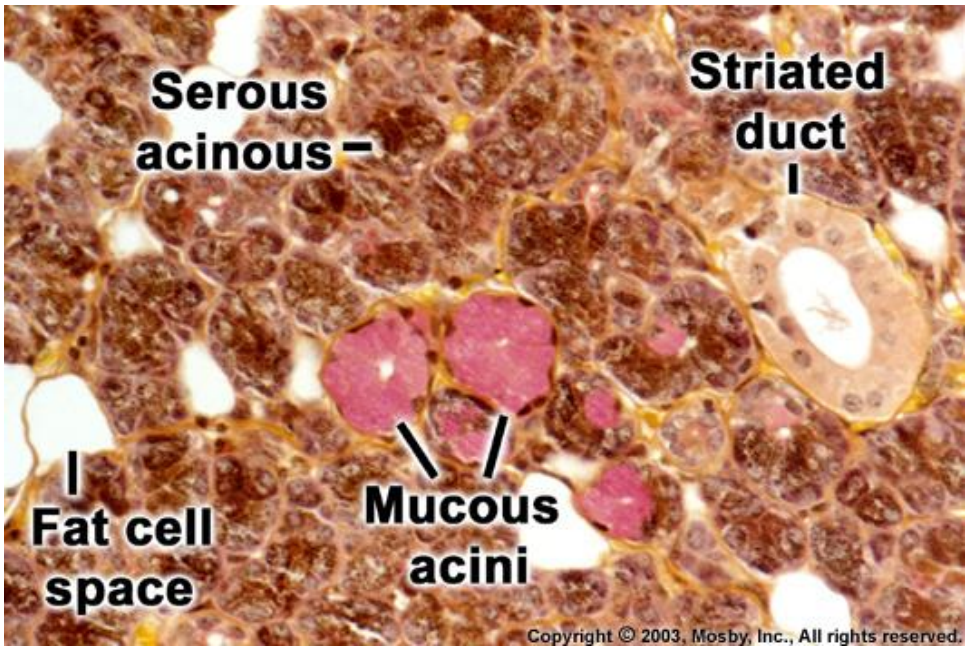
2.Mucous cells

- **Mucous cell (characteristic feature)**

- **pale**
- **Low-protein, high carbohydrate**
- **Mucin: glycoprotein, sialic acid**
- **Viscous**
- **Help in Lubrication**



mucous acini



mixed acini in submandibular gland

3.Myoepithelial cells

- **Surrounding the acinic cell and intercalated duct**
- **Have Long process(Four to eight processes)**
- **like smooth m. in ultrastructure**
- **Support secretory cells**
- **Contract and widen the diameter of the intercalated ducts**

B.Duct system include

- **(1)canlculie**
- **(2)intercalated duct(Lined by small cuboidal cells),**
- **(3)striated duct (Columnar cells ,Centrally located nucleus With Prominent striations)**
- **(4)excretory duct(psedo -stratified with columnar cell with basal cells and goblet cell)**
- **(5)main excretory duct(Stratified ep. As join oral ep.)**