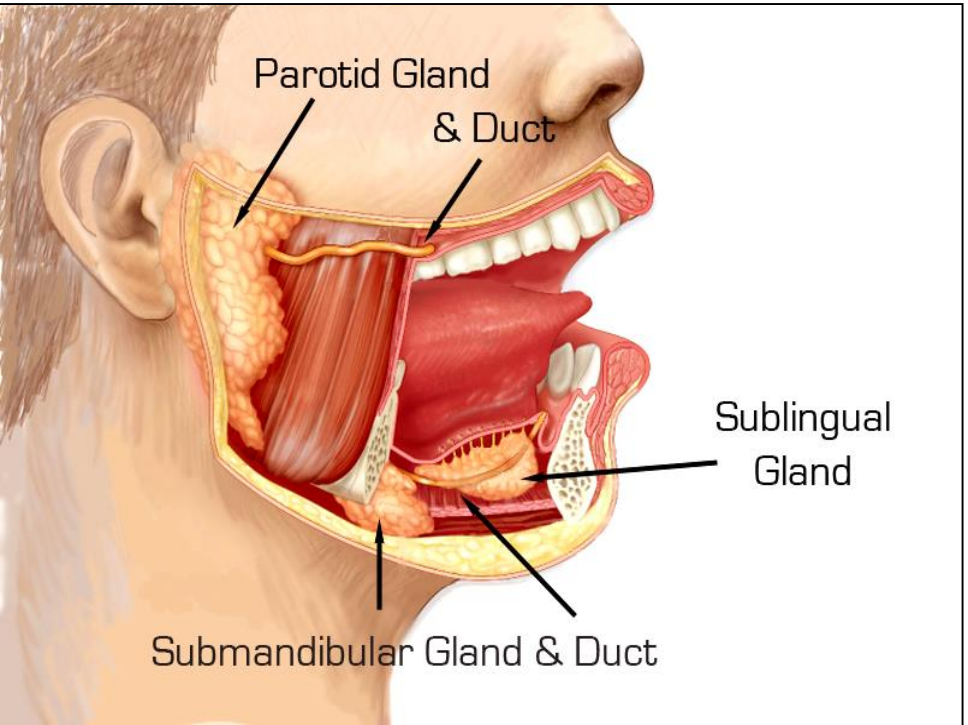
Salivary Glands

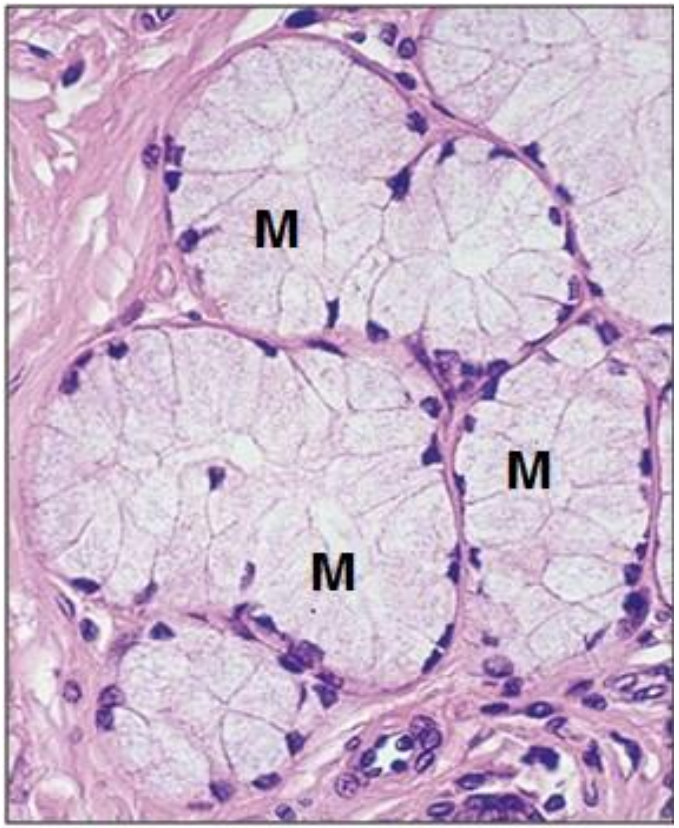
Major

Minor

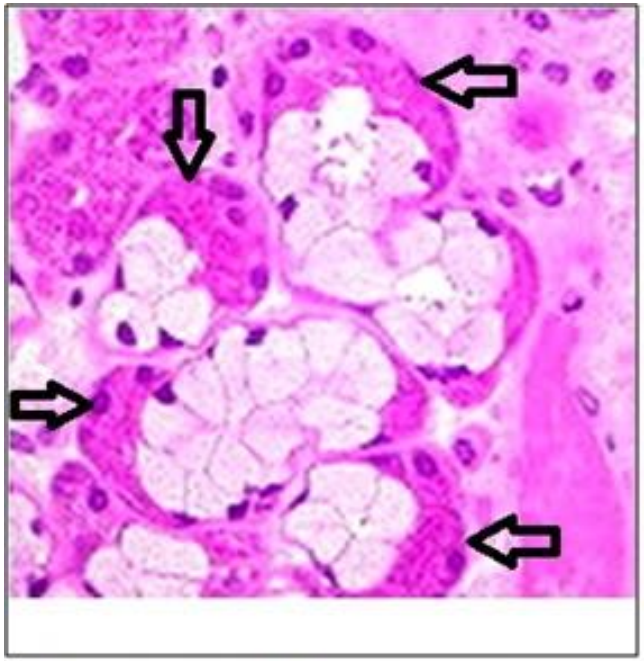


Types of Acini in Salivary Glands

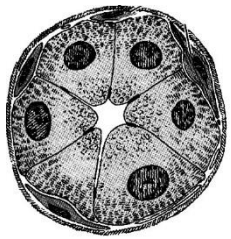
Serous Acinus

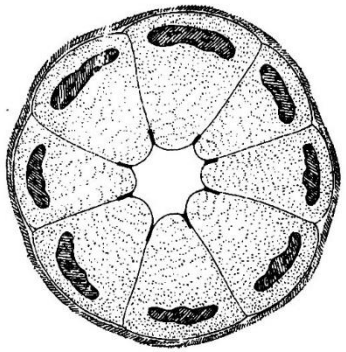


Mucous Acini



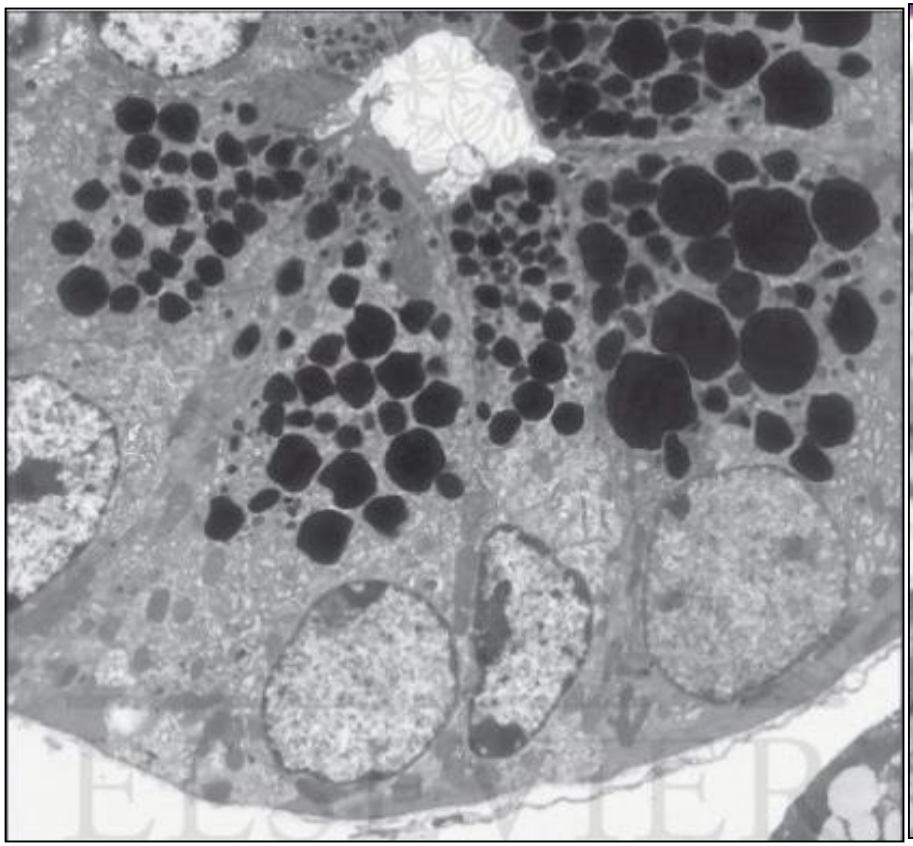
Mixed acini showing serous demilune arrow

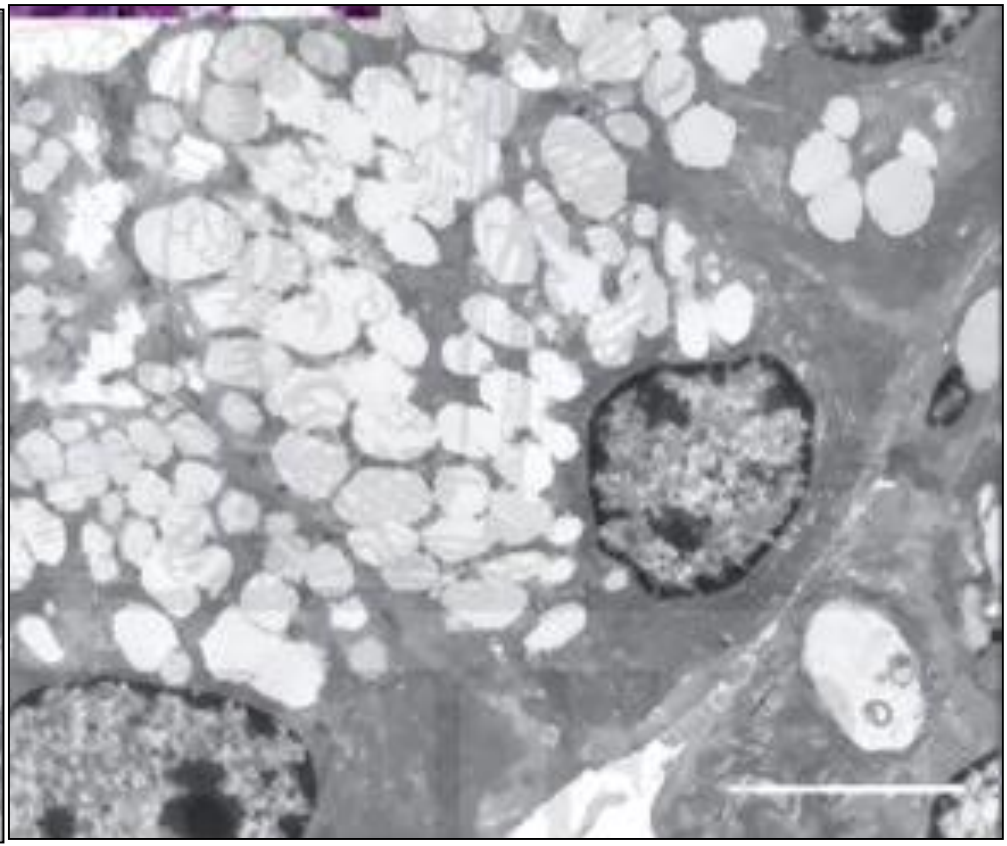




Apical membrane-bound Electron-dense Secretory granules. Serous acini

Membrane-bound Electro-lucent Mucinogen granules. Mucous acini

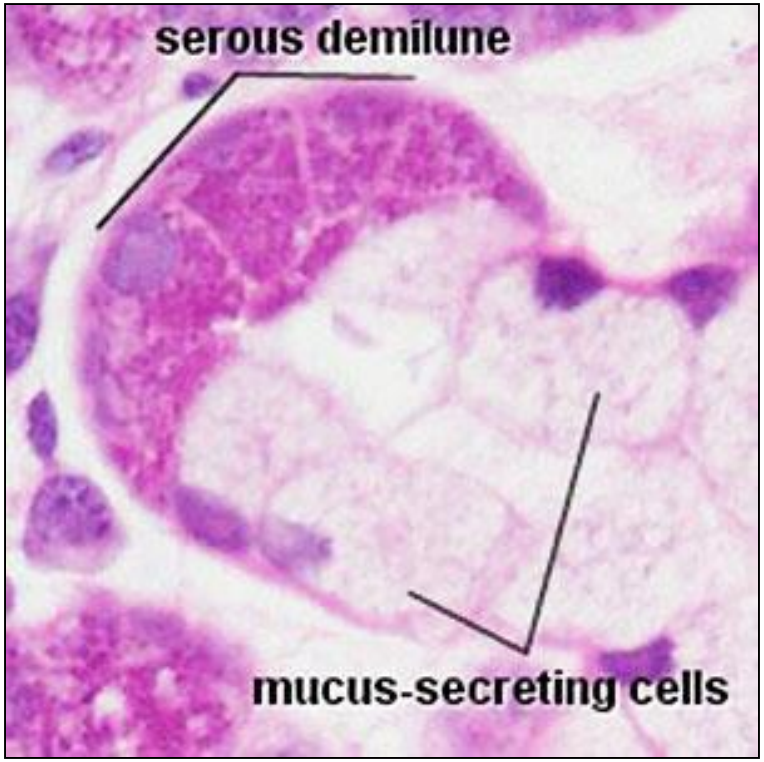




Mixed Acinus

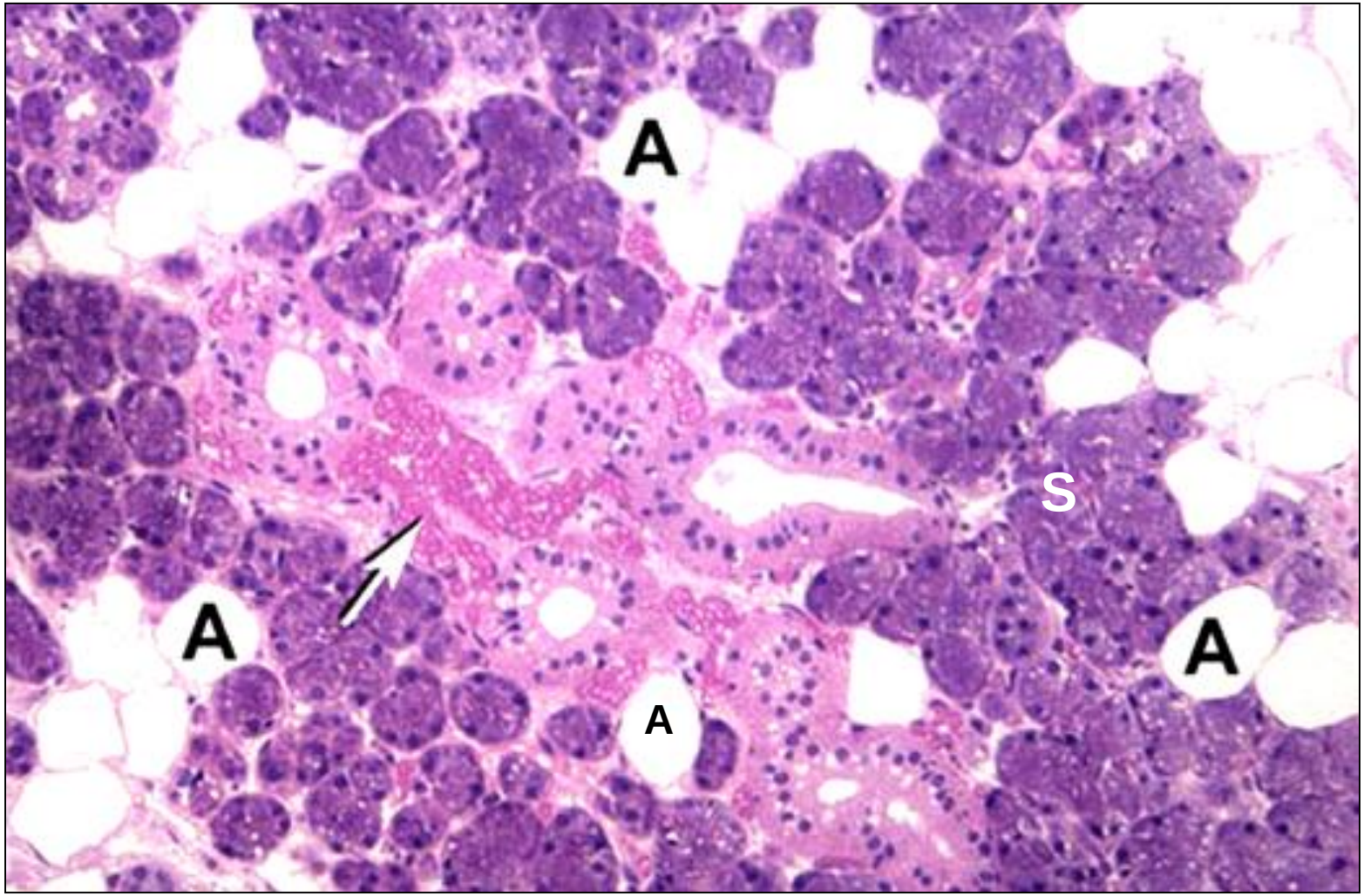
Mixed Acinus

Mucous acinus (M) capped by Serous Demilune (S) / Crescent of Giannuzi [formed of serous cells]

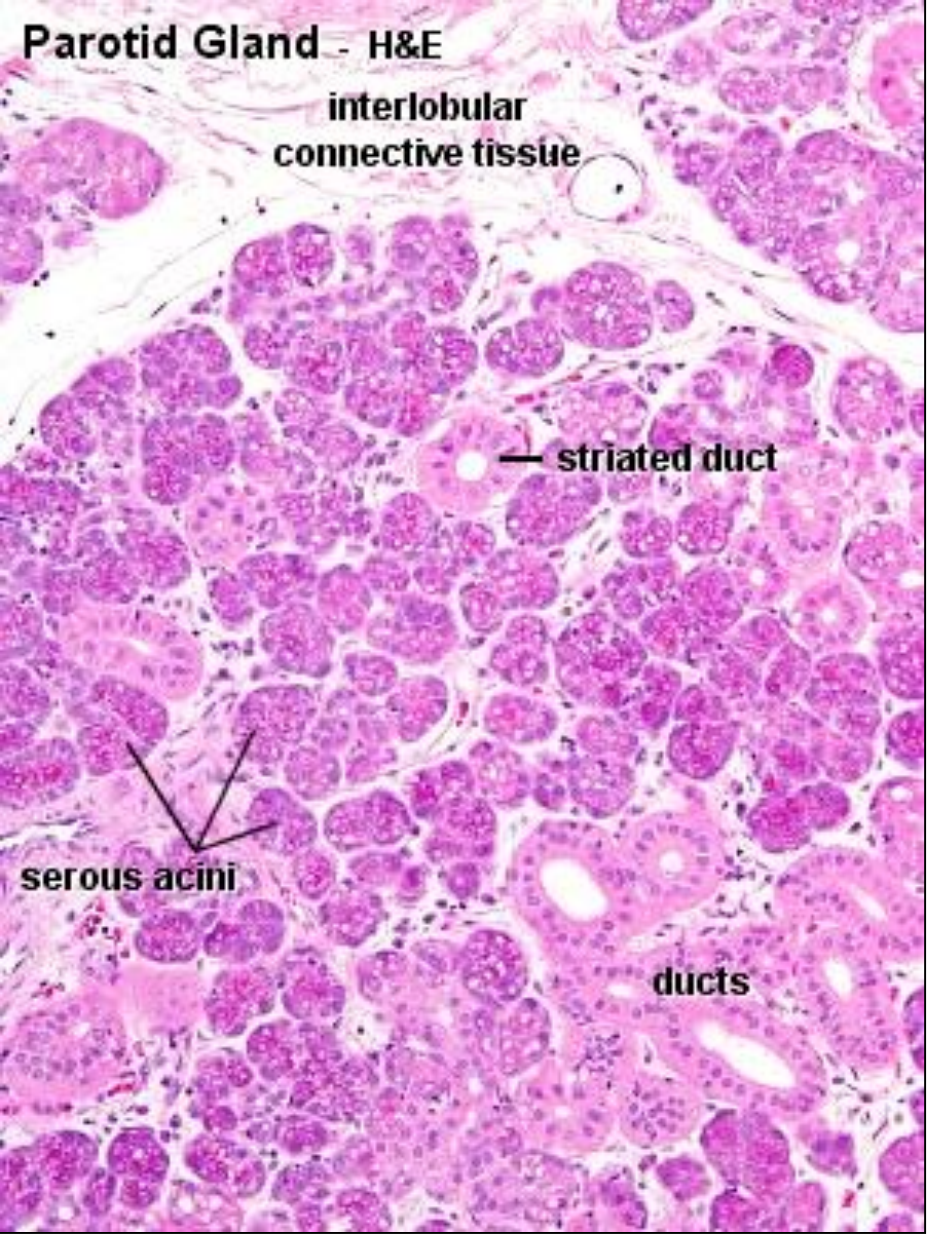


E.M. Picture of a Mixed acinus. Mucosero us acini

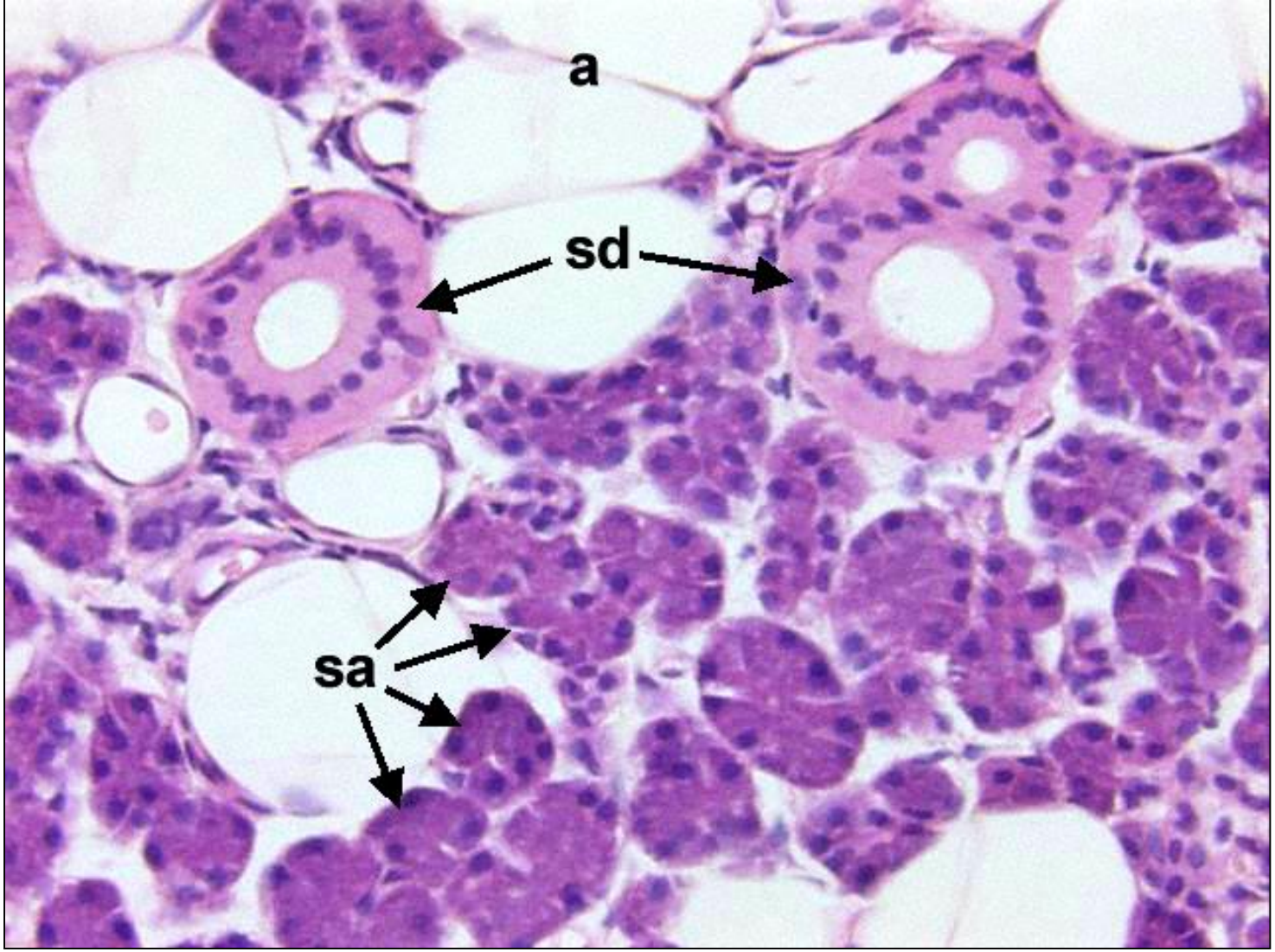
Parotid Gland [the largest]



Stroma is well developed: Thick capsule.
Trabeculae (Septa) are thick & rich in adipocytes (A).
Parenchyma: Purely serous acini (S).



Purely serous acini +
Prominent striated ducts.



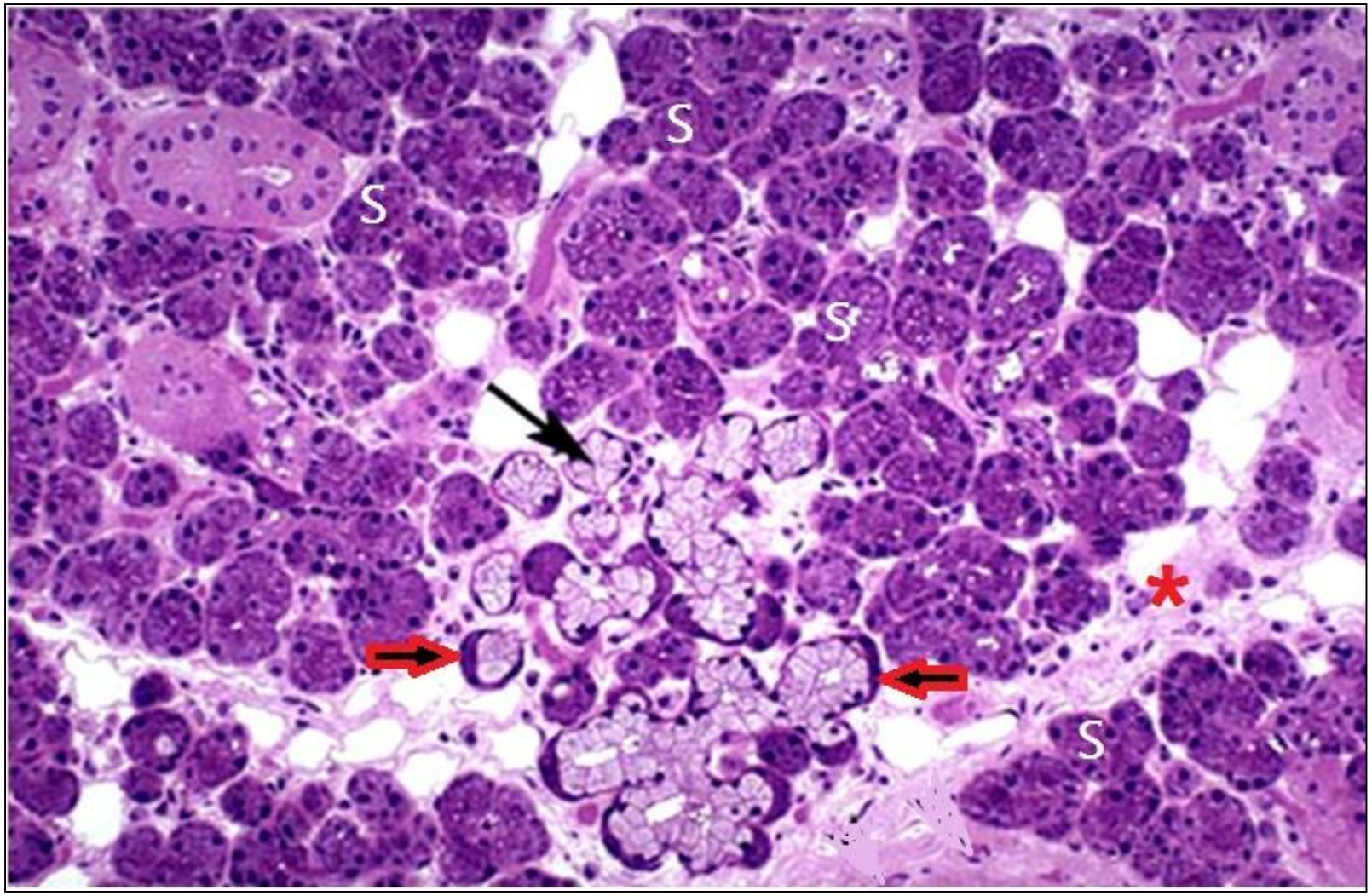
Histological features characteristic for section in the parotid gland include:

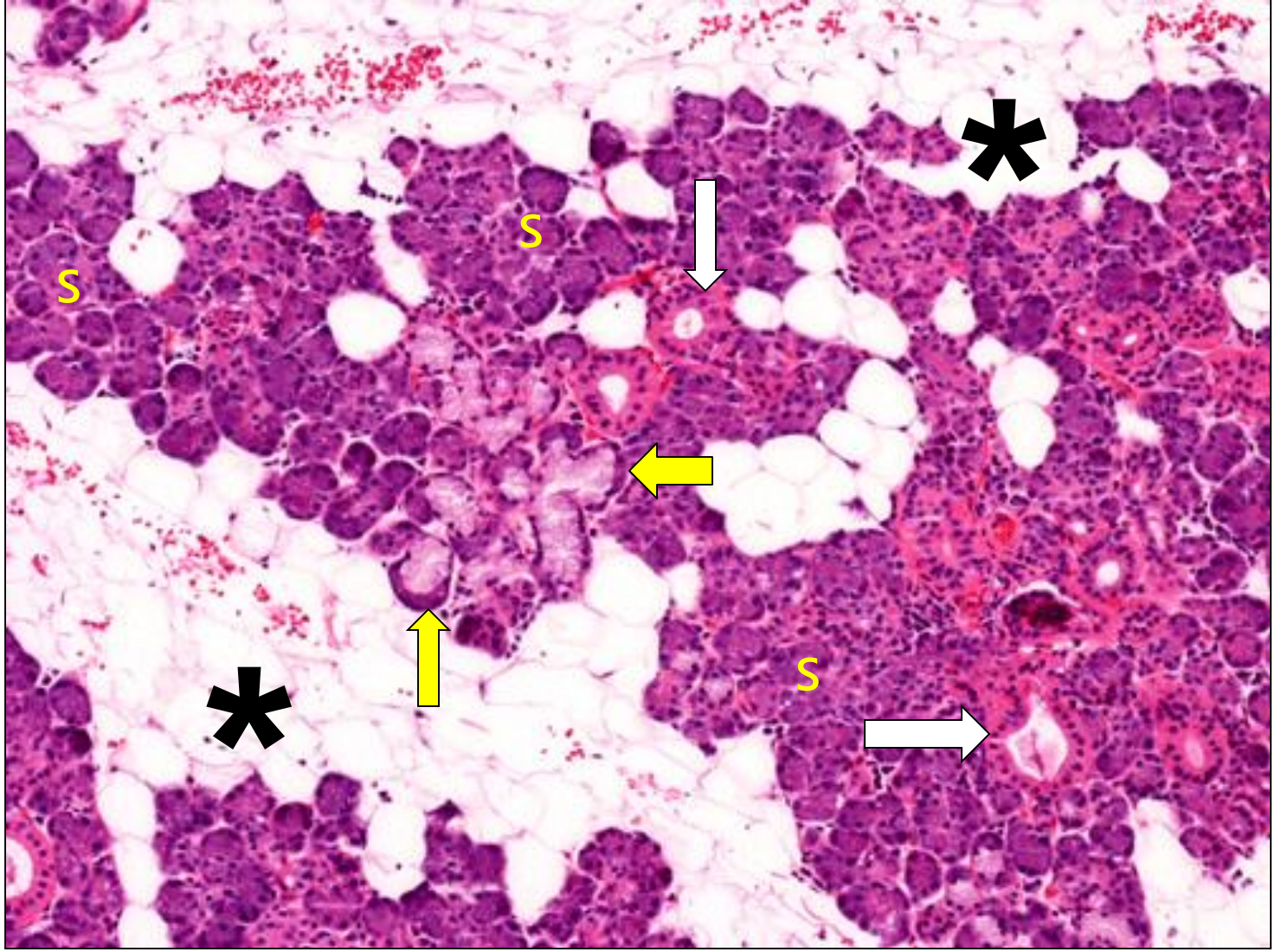
1- All the acini in the field are ---------serous acini- (sa) --------

2- Many ------striated ducts (sd): --. They are located--intralobular-------.

3- Many adipocytes (a).

Submandibular Gland





Histological features characteristic for section in the submandibular gland include:

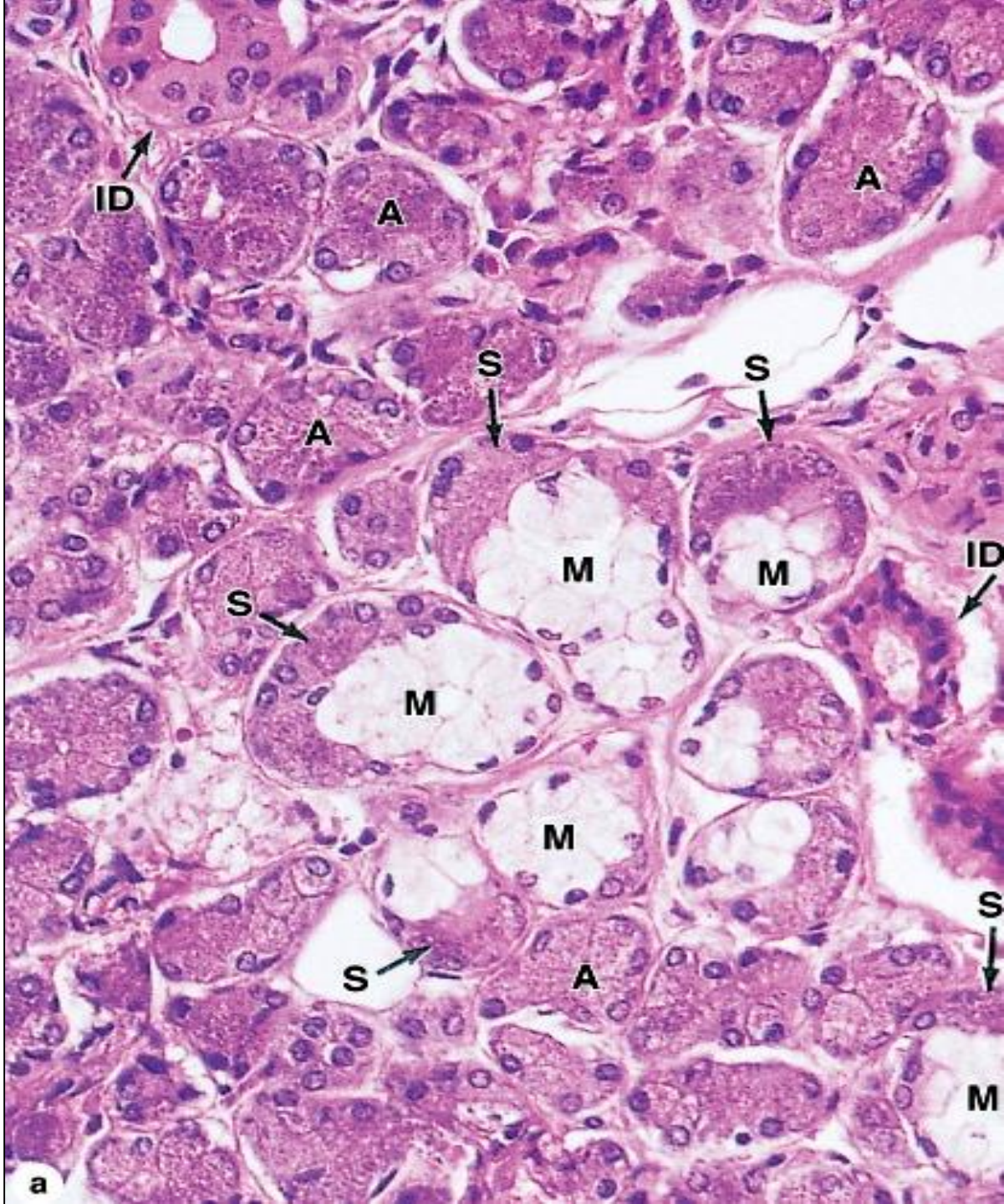
-Acini in the field are mostly ------serous acini- (S) ---- with the presence of some- mixed acini----(yellow arrows). – Many intralobular ducts (white arrows) - Thick C.T, septa rich in fat cells (stars)

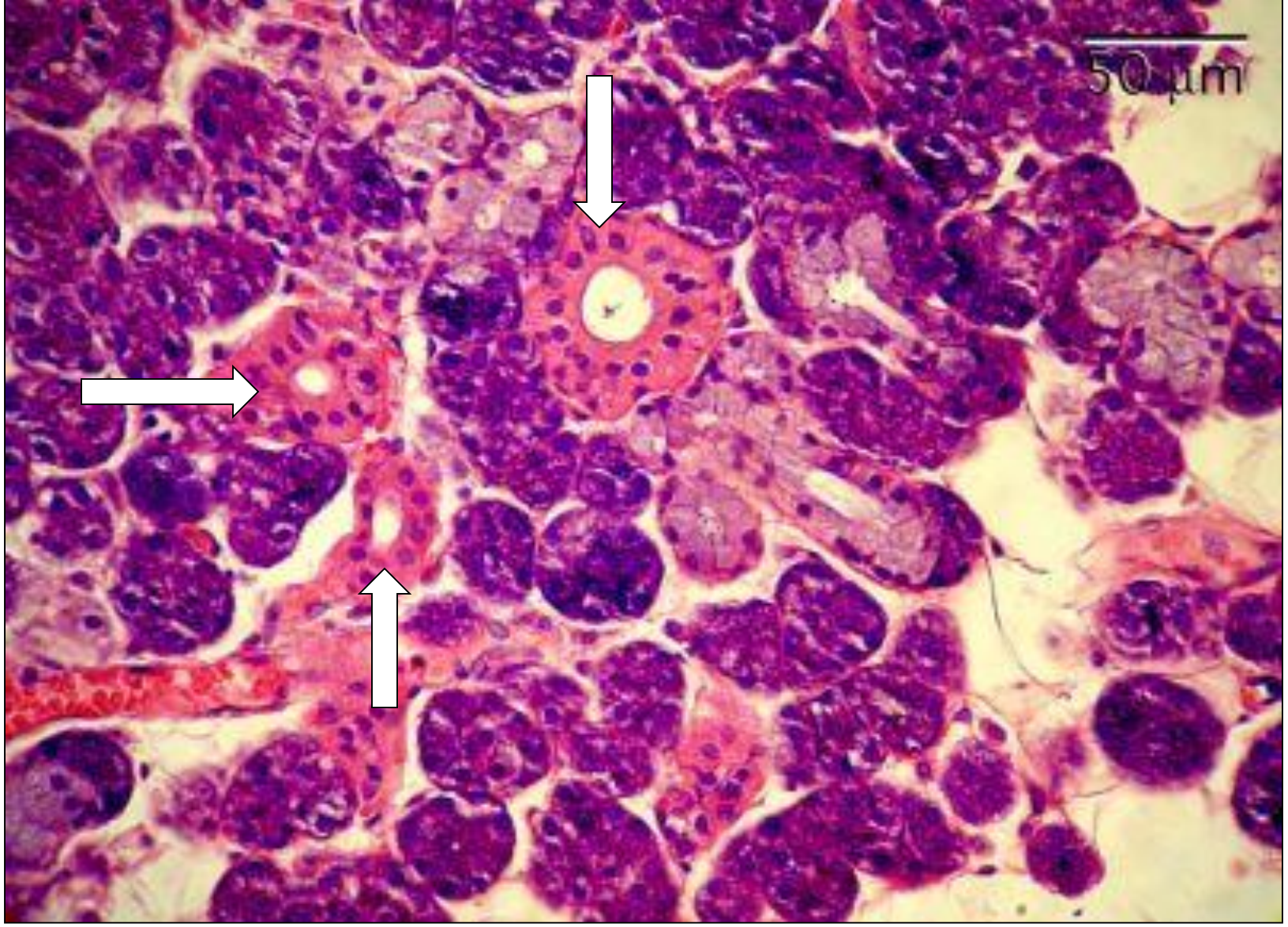
Serous acini (A) predominate in Submandibular gland.

Serous cap in serous demilunes (S).

Pale-staining mucous cells (M).

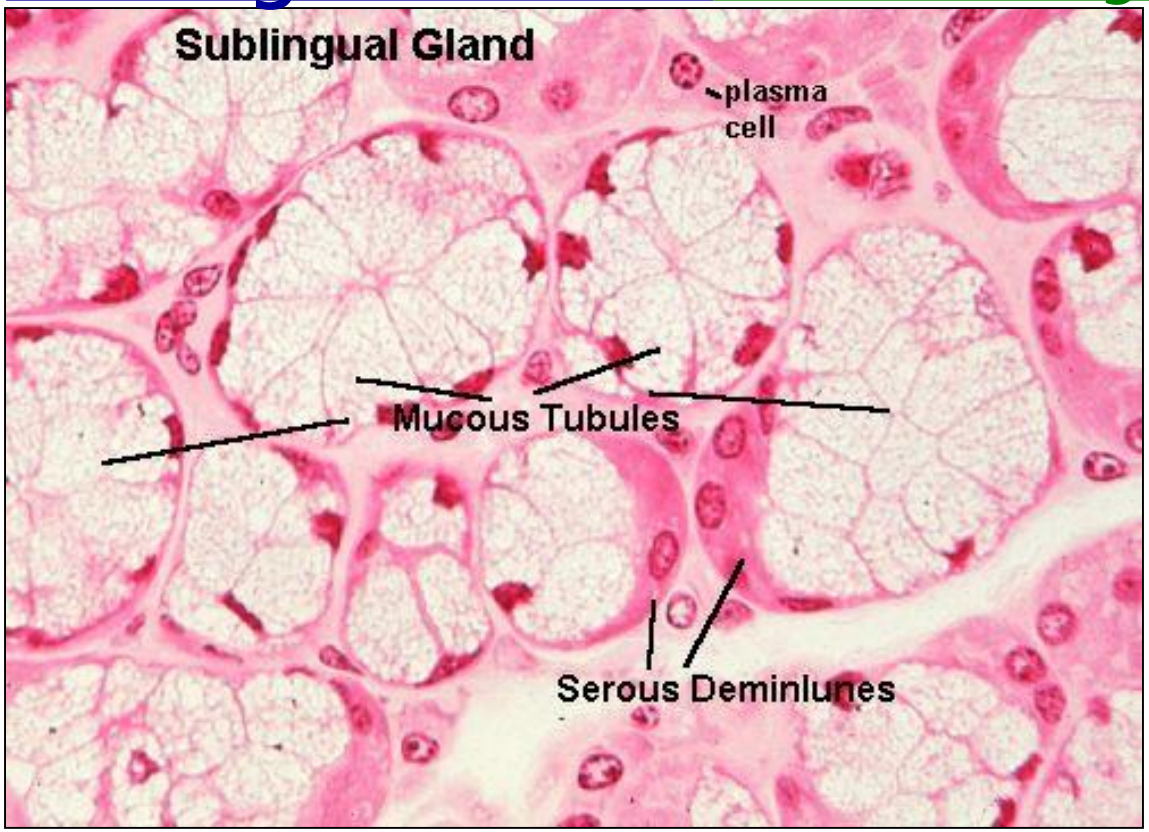
Intralobular ducts (ID).





Submandibular gland has a branching duct system (arrows) like that of major salivary glands.

Sublingual Gland (the smallest gland)



Mucoserous gland

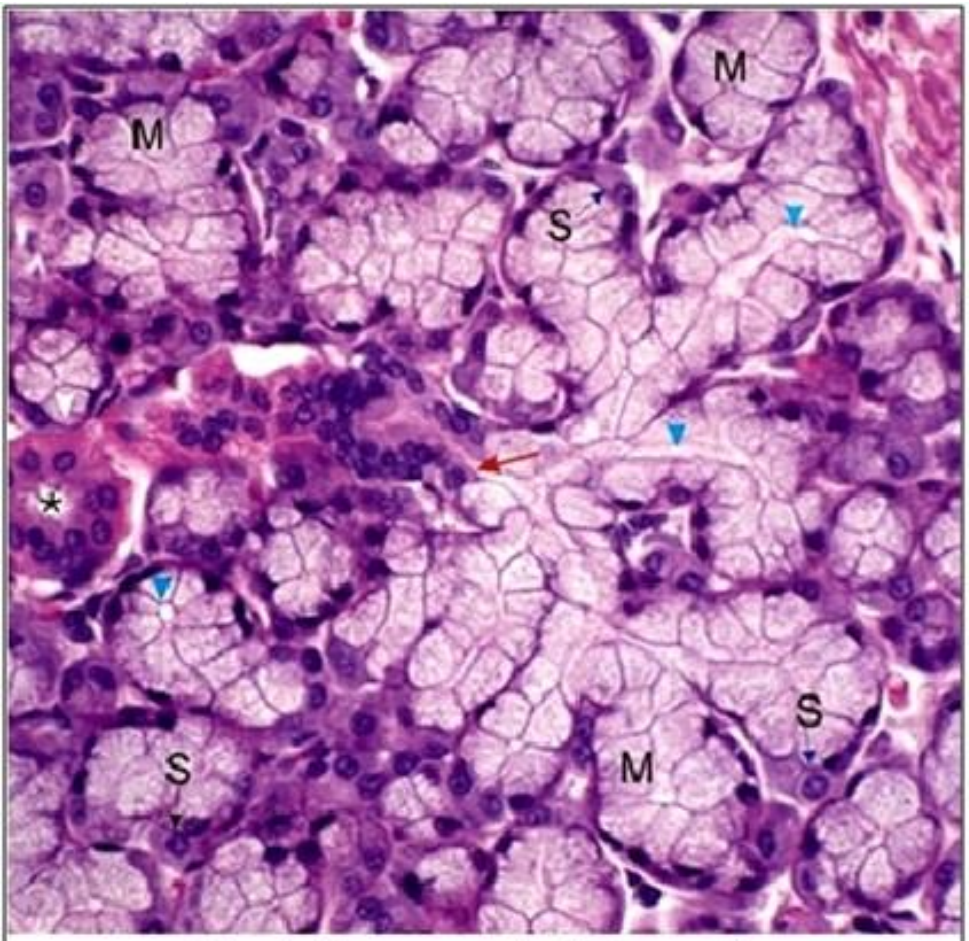
Mucous acini predominate.

Some mixed acini.

NO purely serous acini.

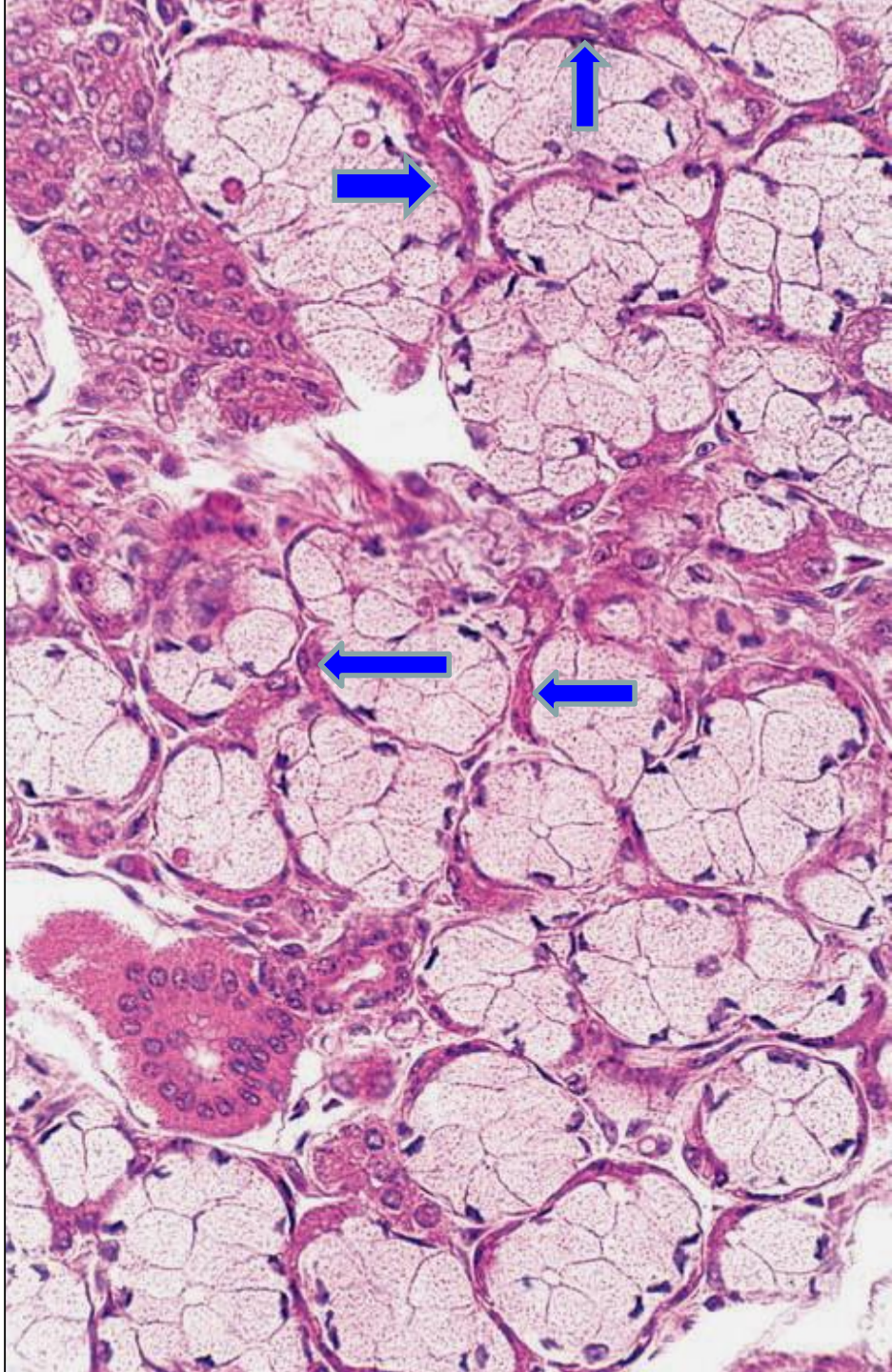
Few, less-developed intercalated and striated ducts.

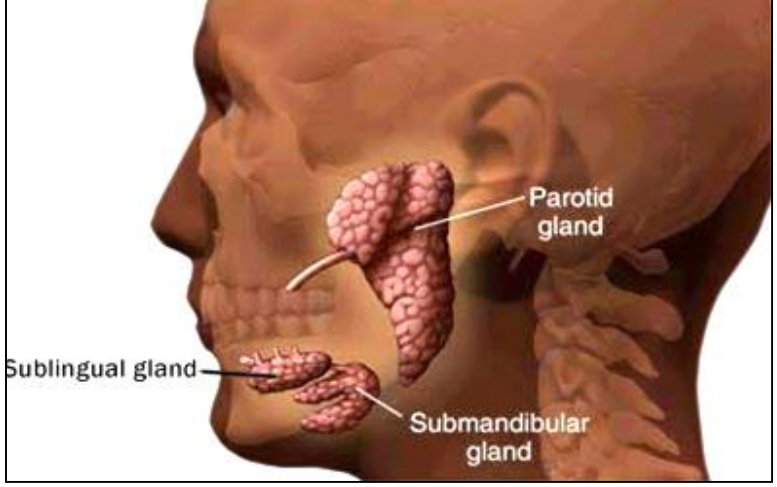
Sublingual Gland



Sublingual Gland

M: Mucous acini S: Serousdemilune
Red arrow: Intercalated duct
Star: Intralobular (Striated) duct

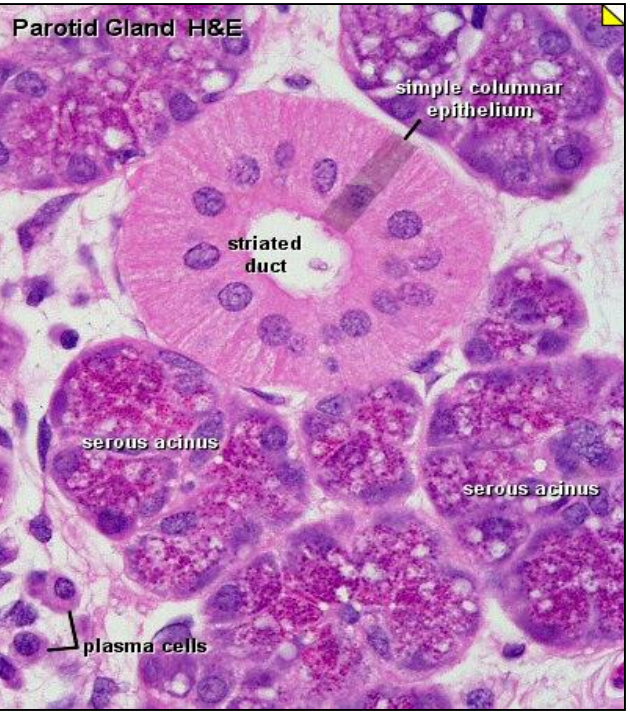


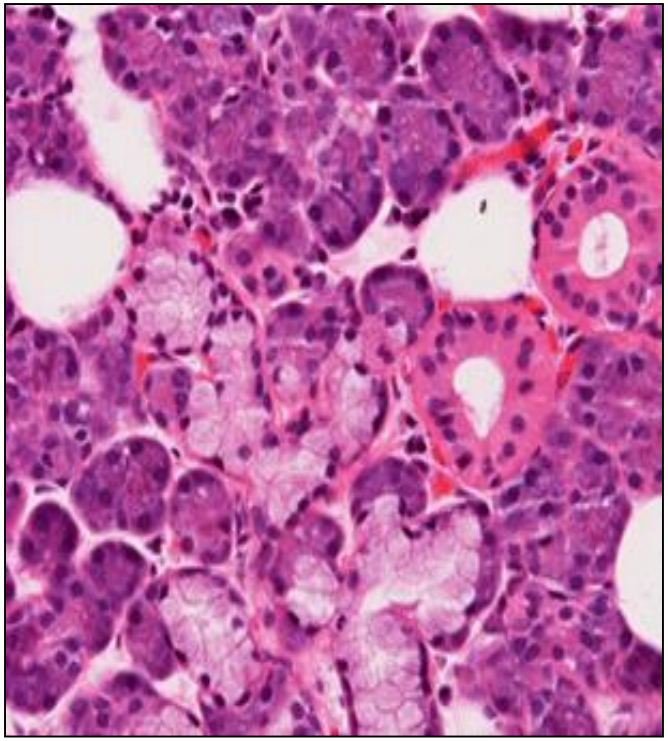


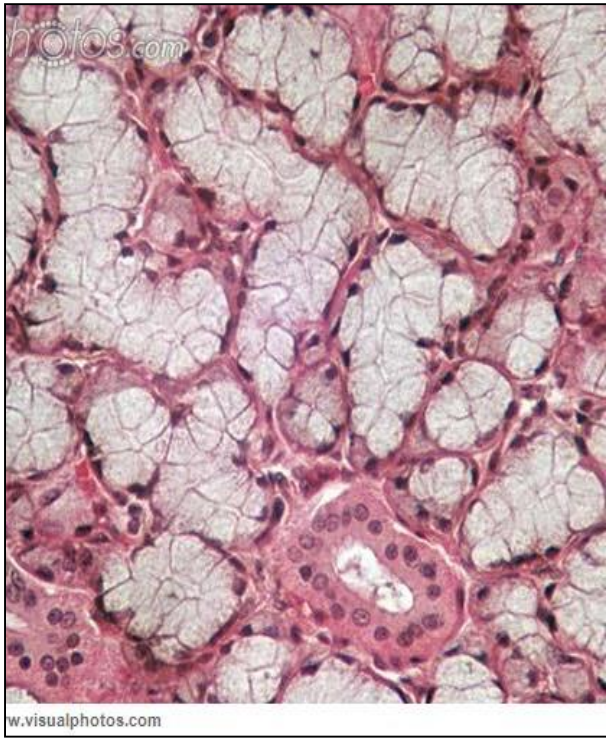
Parotid

Submandibular

Sublingual



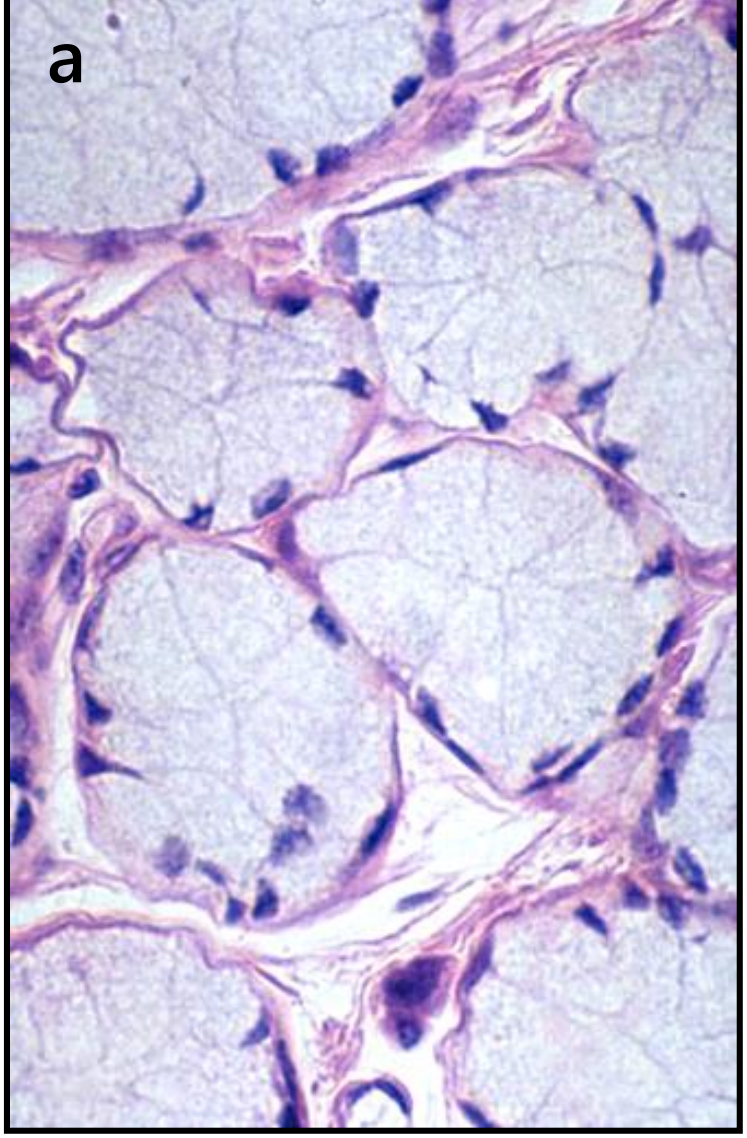




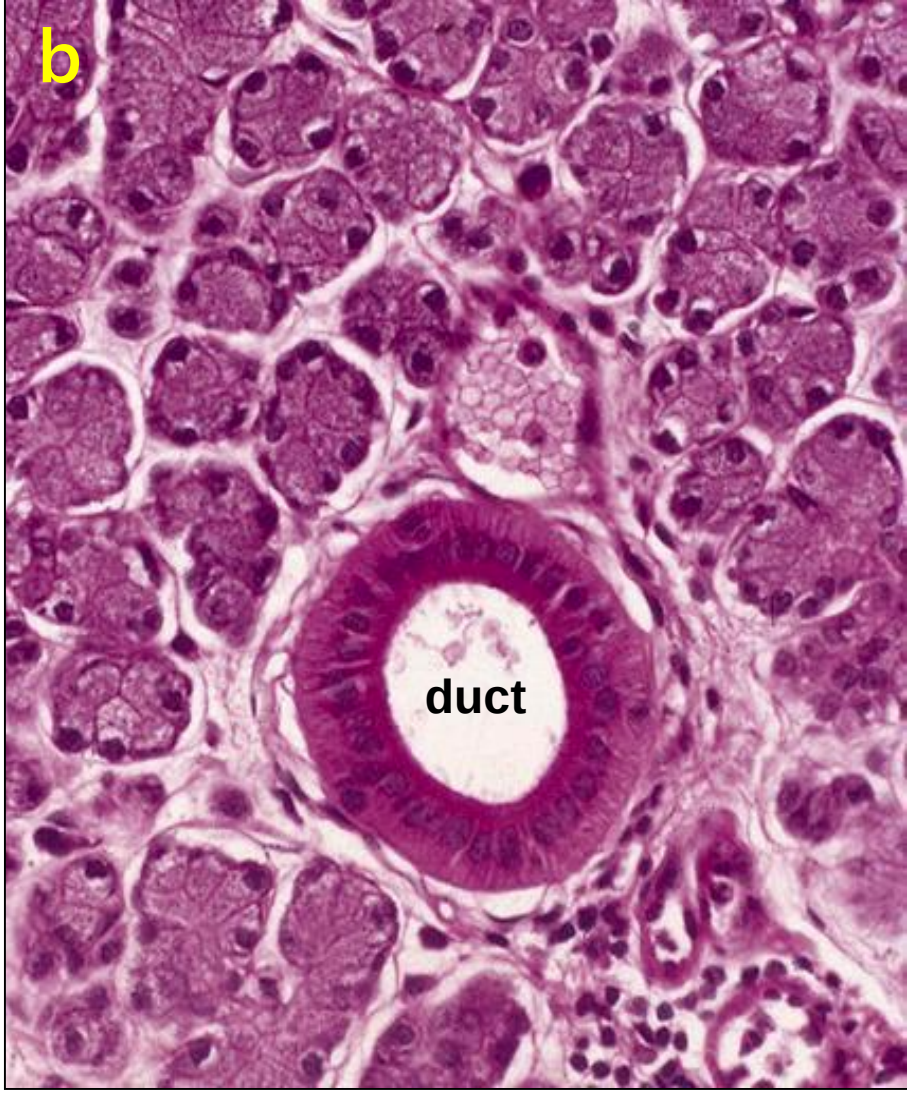
	Parotid gland	Submandibular gland	Sublingual gland
Capsule:	-Thick	- Thick capsule	- Thin capsule
Septa:	-Thick, rich in fat	-Thin septa, less fat	- Thick septa
Parenchyma **Acini**	**Purely Serous**	**Mixed [Seromucous]** **Predominant serous (90%)** + 10% Mucous acini & Mixed	**Mixed [Mucoserous]** **Predominant mucous** + mixed acini. **NO** purely serous acini.
Ducts	**Prominent intralobular ducts**	**Present**	**Fewer**
Main duct	opens opposite upper 2nd molar tooth	Open posterior to the lower incisor teeth	Open by numerous ducts posterior to ducts of submandibular gl.
	Secrete 25% of saliva	**70%**	**5%**

Datashow Exam

1



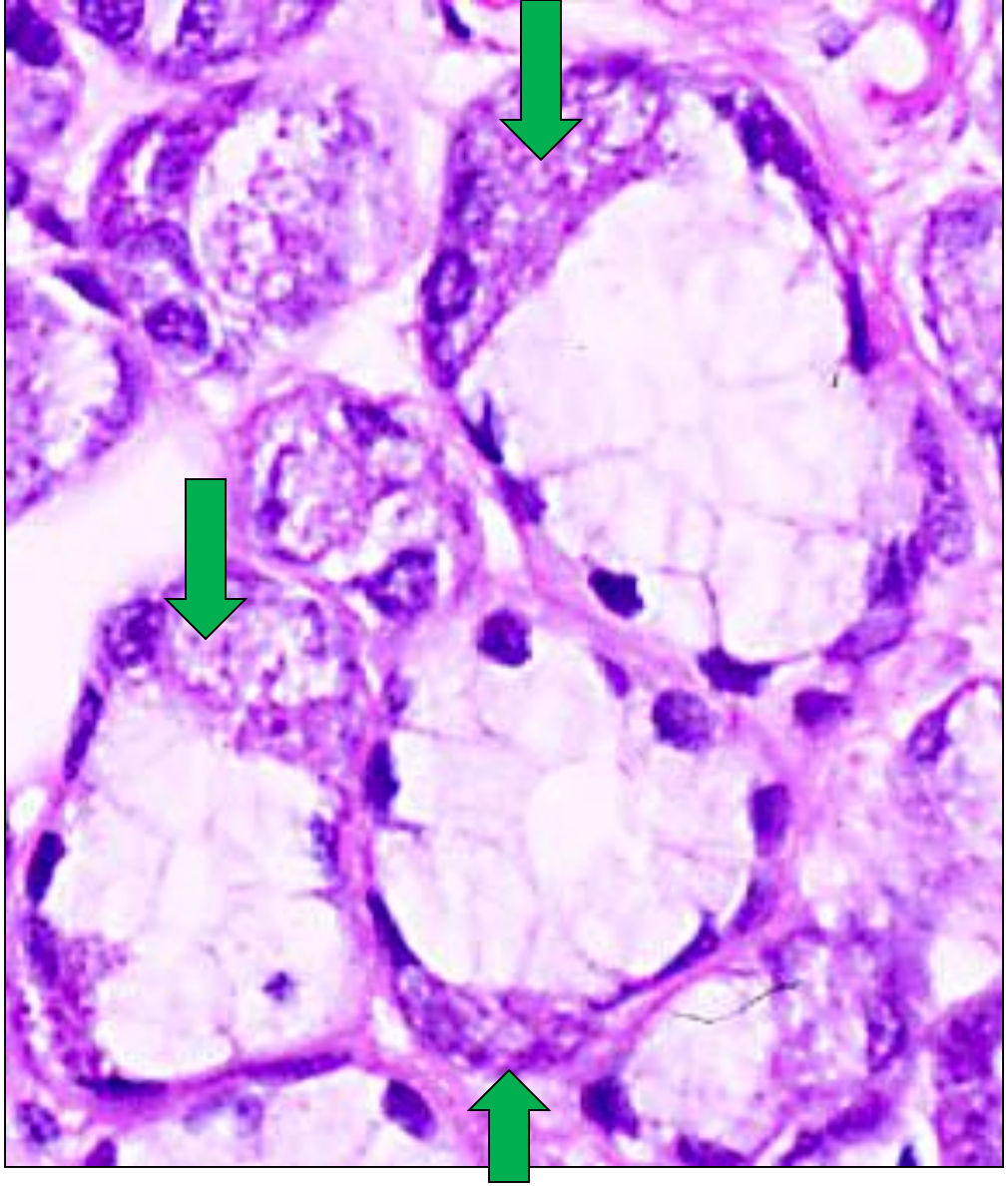
Mucous acini



Serous acini

Identify the type of acini in photos a and b.
Compare their histological characteristics.

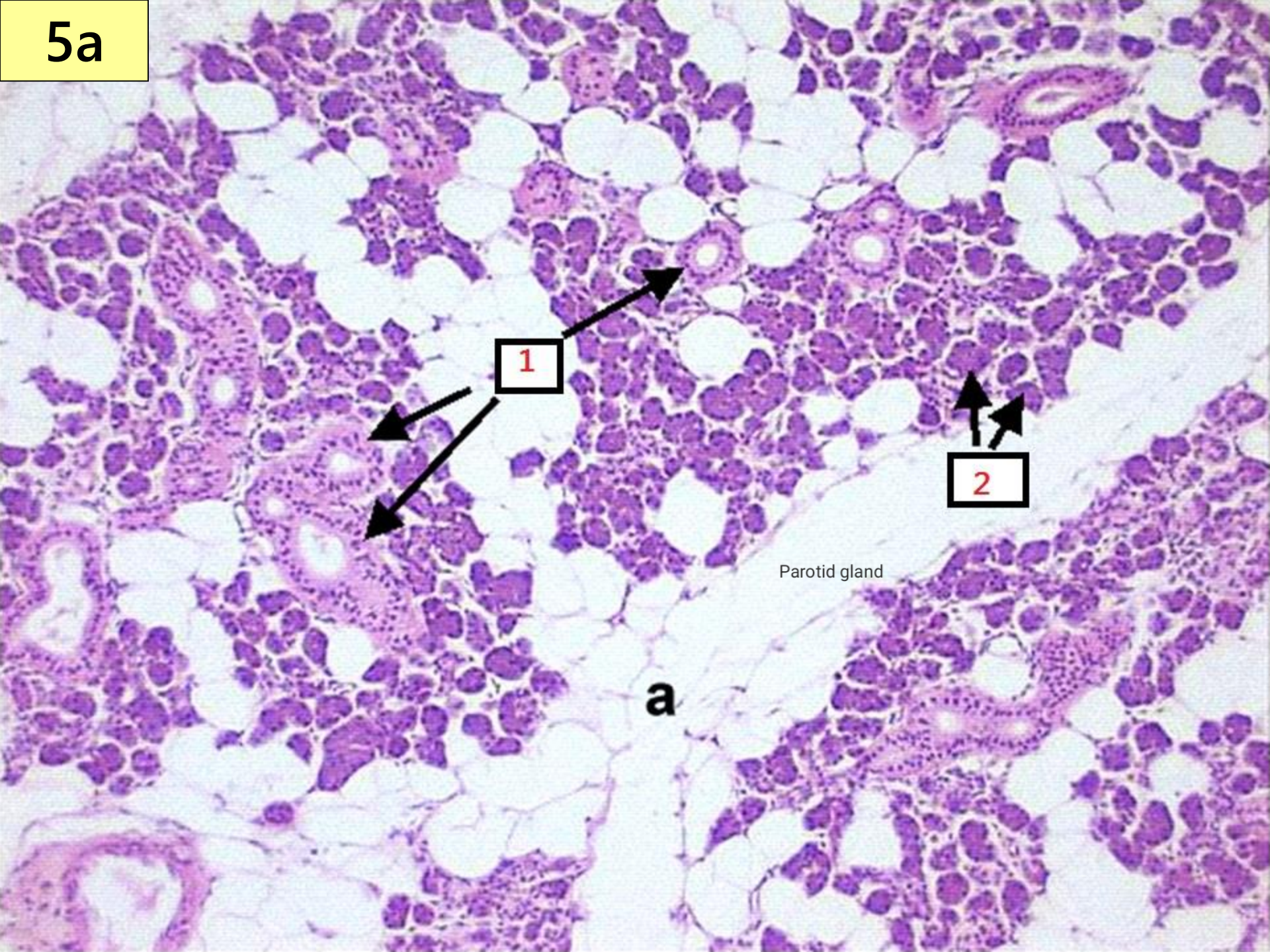
2

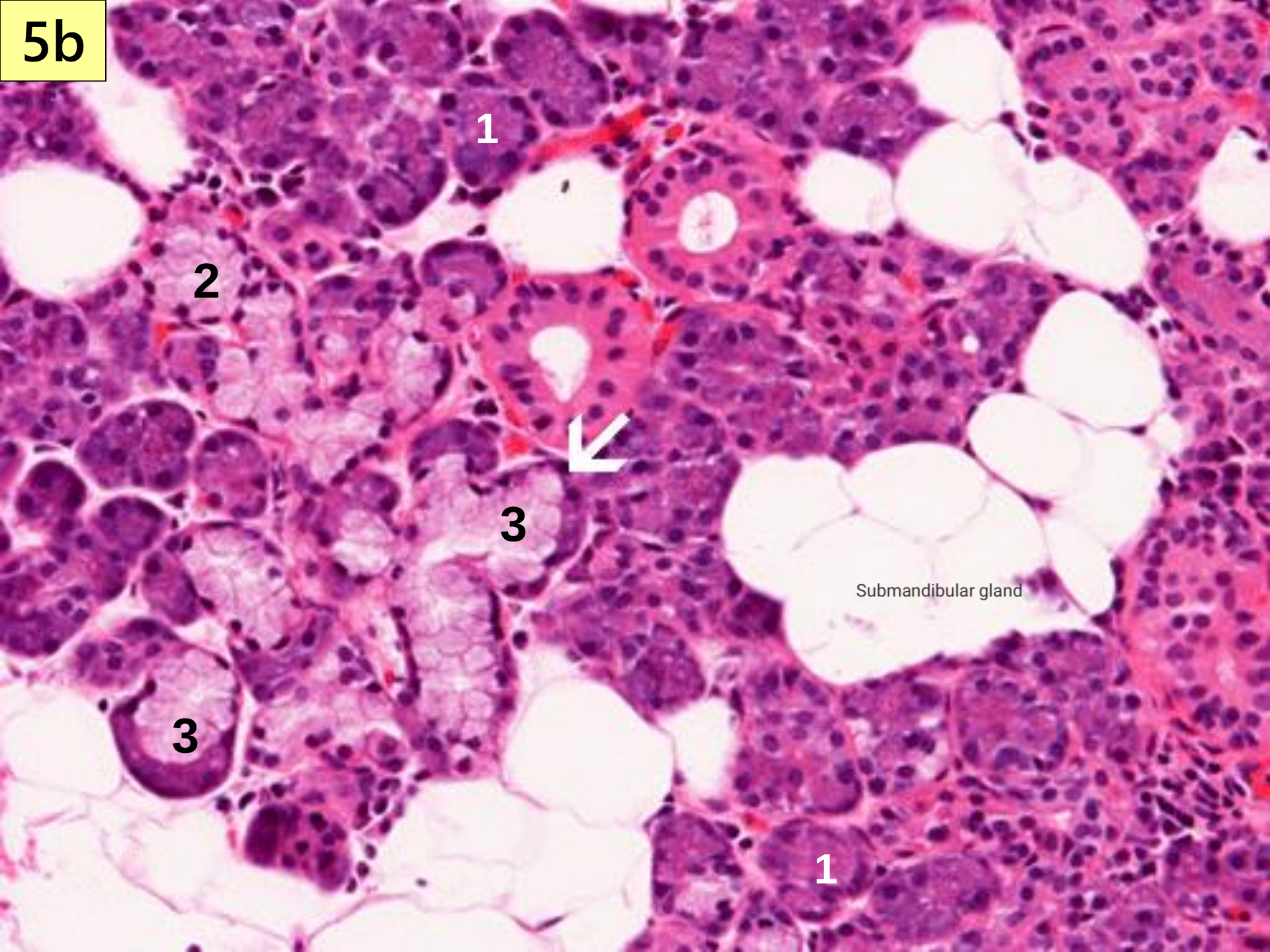


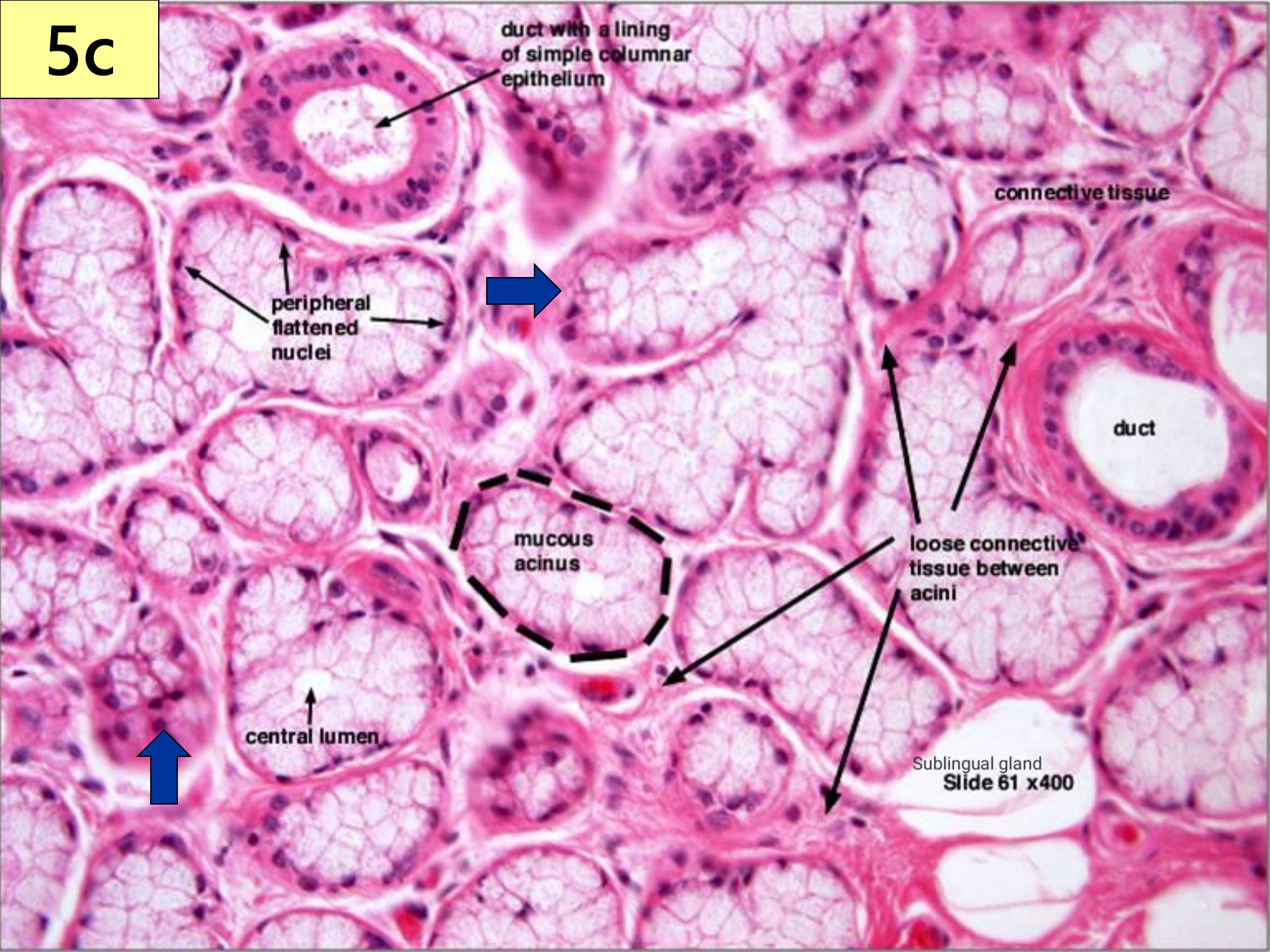
The type of acini is ----------Mixed acini----------where the green arrows point to ----------Serous demilune----------.

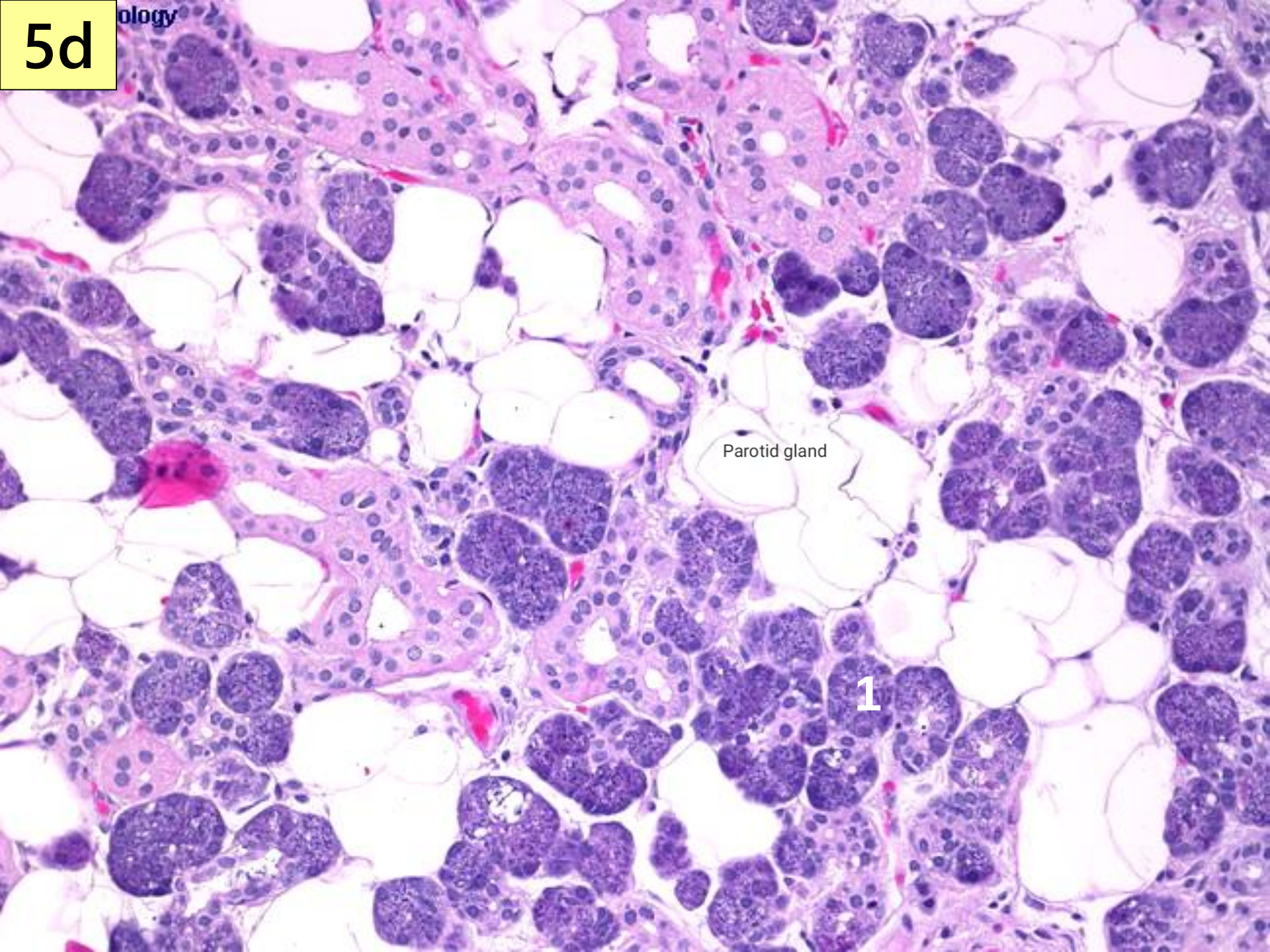
5

Identify the type of Salivary glands in the following figures:

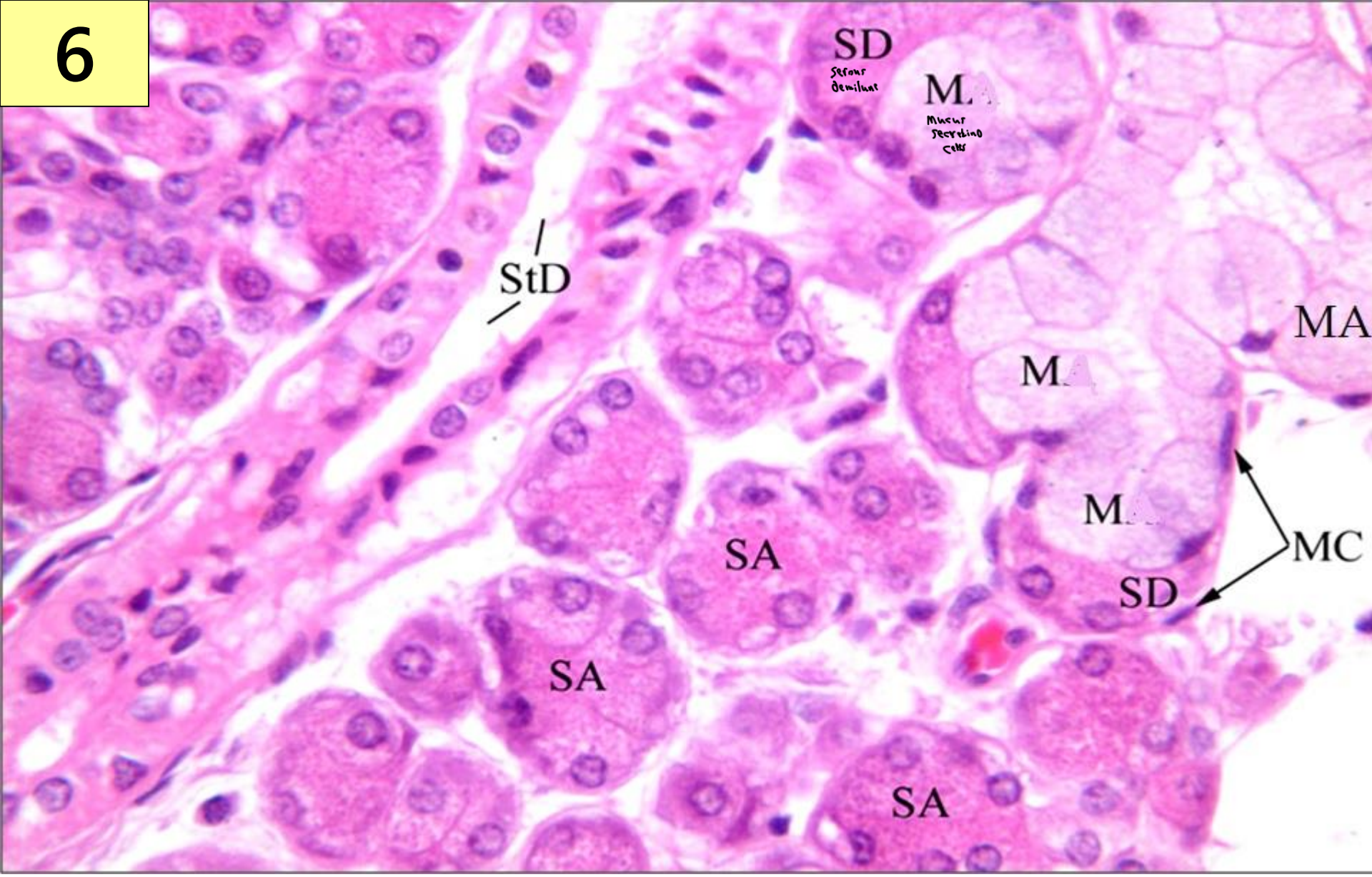

5a
1
2
Parotid gland
a


5b
1
2
3
Submandibular gland
3
1


5c
duct with a lining of simple columnar epithelium
connective tissue
peripheral flattened nuclei
duct
mucous acinus
loose connective tissue between acini
central lumen
Sublingual gland
Slide 61 x400


5d
ology
Parotid gland
1

6

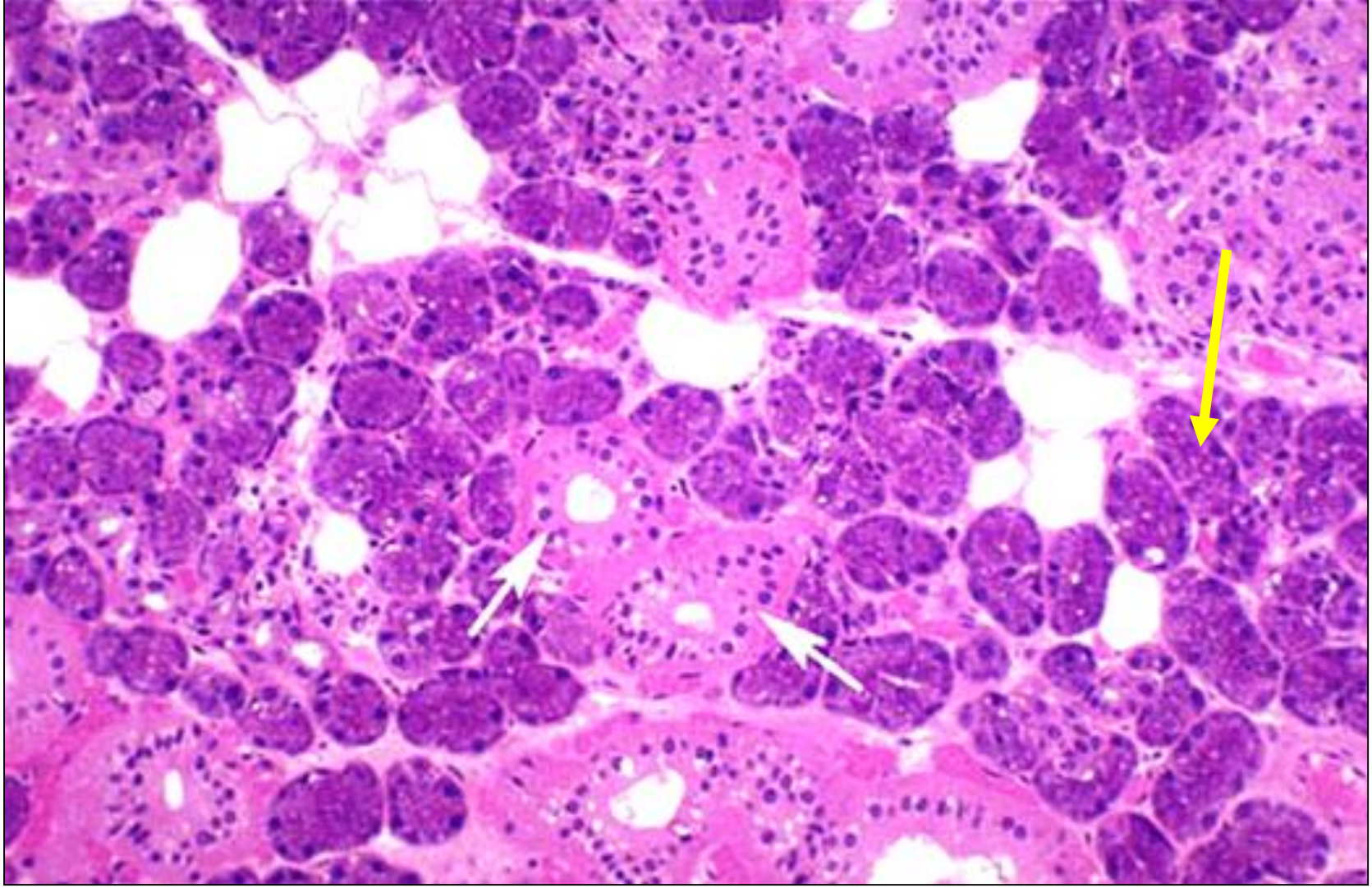


Identify the labeled structures.

SA - serous acini MA - mucous acini SD - serous demilune
StD - striated duct MC - myoepithelial cells

This gland is Submandibular gland ----------

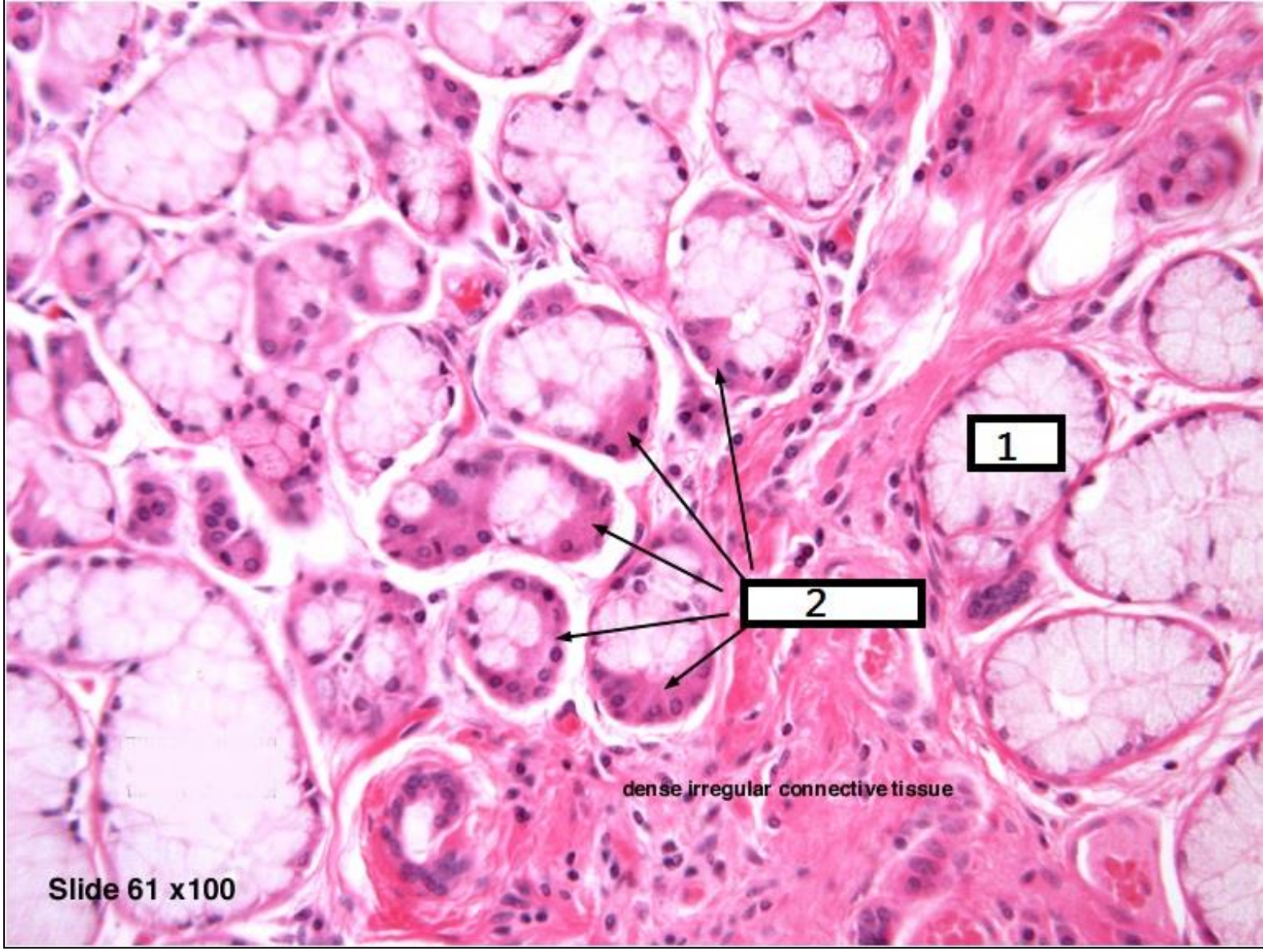
7



- Identify the arrows: yellow & white.
- This gland is ----------

Parotid gland

8



Identify the type of acini: 1 and 2.
This gland is ---------

1: Mucous acini
2: Mixed acini

Sublingual gland