



PRACTICAL HISTOLOGY 1 - FIRST COURSE

LAB -5- The Glands

Sawa University

جامعة ساوة الاهلية

College of health and medical techniques

كلية التقنيات الصحية والطبية

Department of Medical Laboratories

قسم تقنيات المختبرات الطبية

First stage

المرحلة الاولى

محاضرة رقم 5

الجانب العملي

Lecture No. 1

Practical

تدريسي المادة : م.م هبه صاحب صادق

Aims of lecture :-

- DEFINE A GLAND AS A FUNCTIONAL UNIT OF CELLS THAT CREATES AND RELEASES PRODUCTS.
- EXPLAIN THE FUNDAMENTAL DIFFERENCE BETWEEN EXOCRINE (DUCT-SECRETING) AND ENDOCRINE (DUCTLESS, INTO BLOODSTREAM) GLANDS.

Glandular Epithelial Tissue

Glands : cell or cells specialized to produce a fluid secretion, they synthesize, store and secrete extracellular products that are not used by the cell itself but are of importance to other parts of organism .

Classified of Glands :

A) According to type of secretion:

1. Exocrine glands

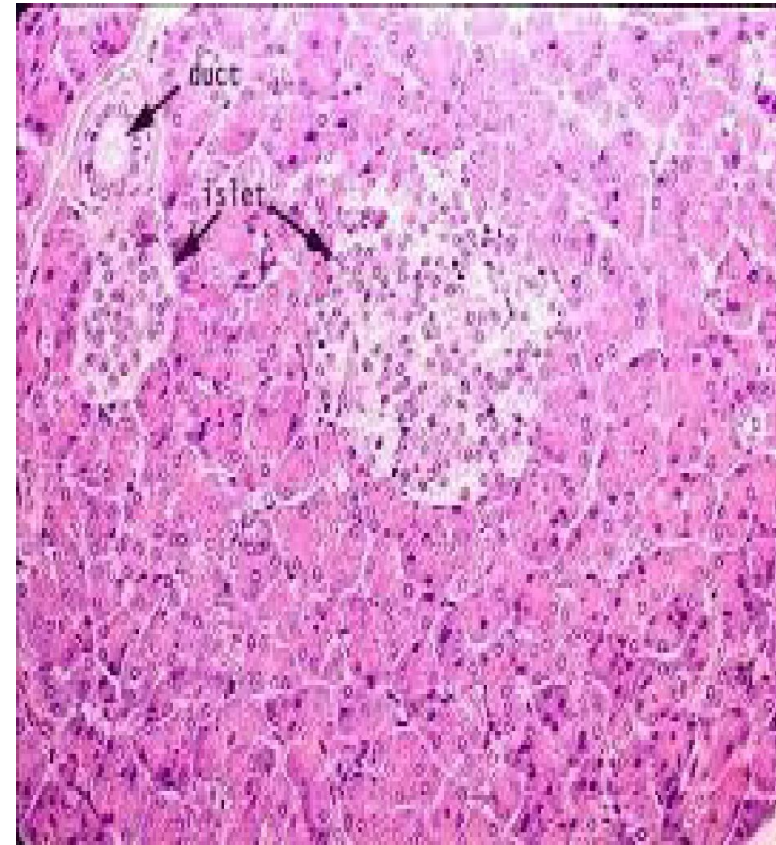
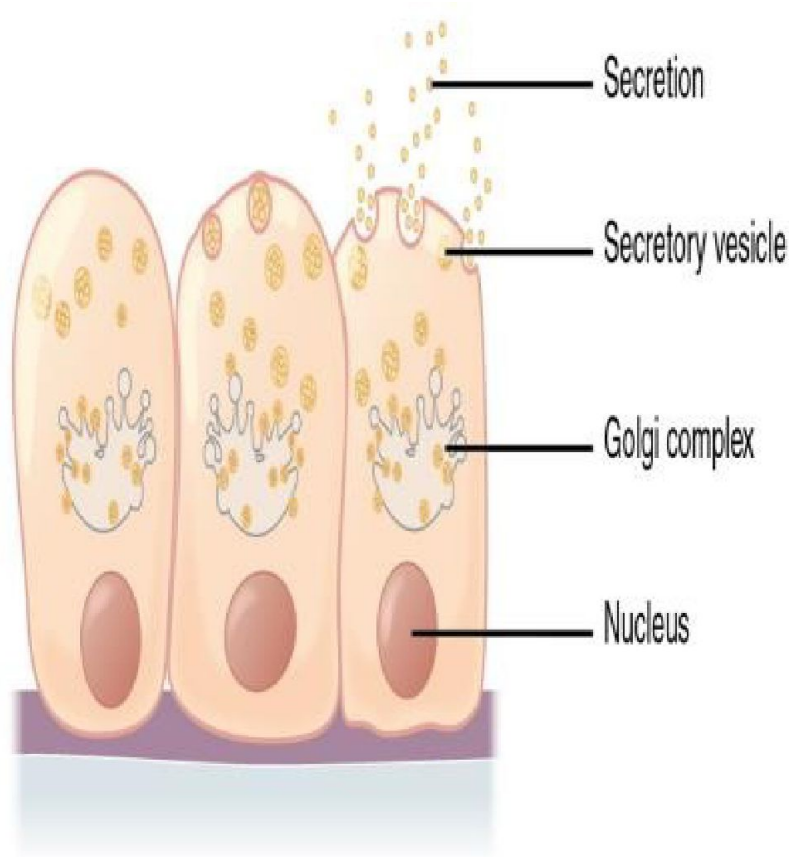
2. Endocrine glands



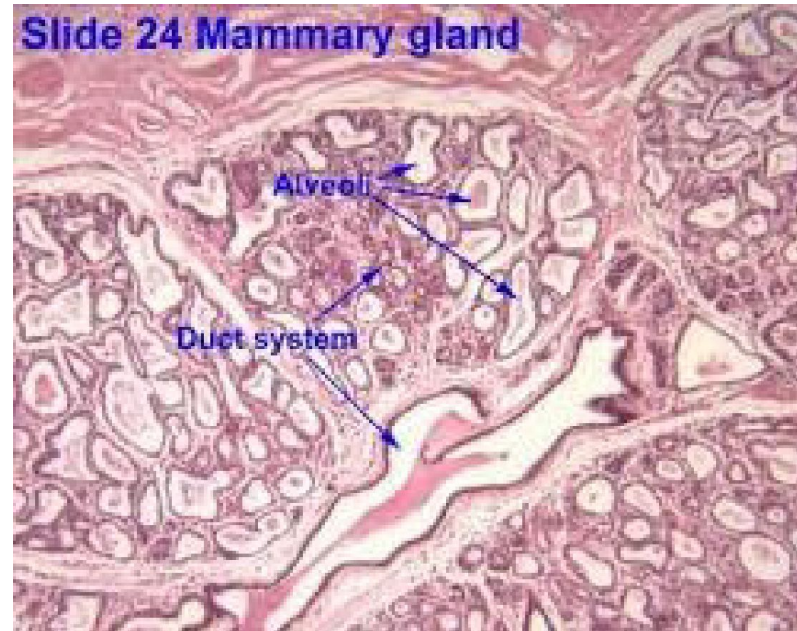
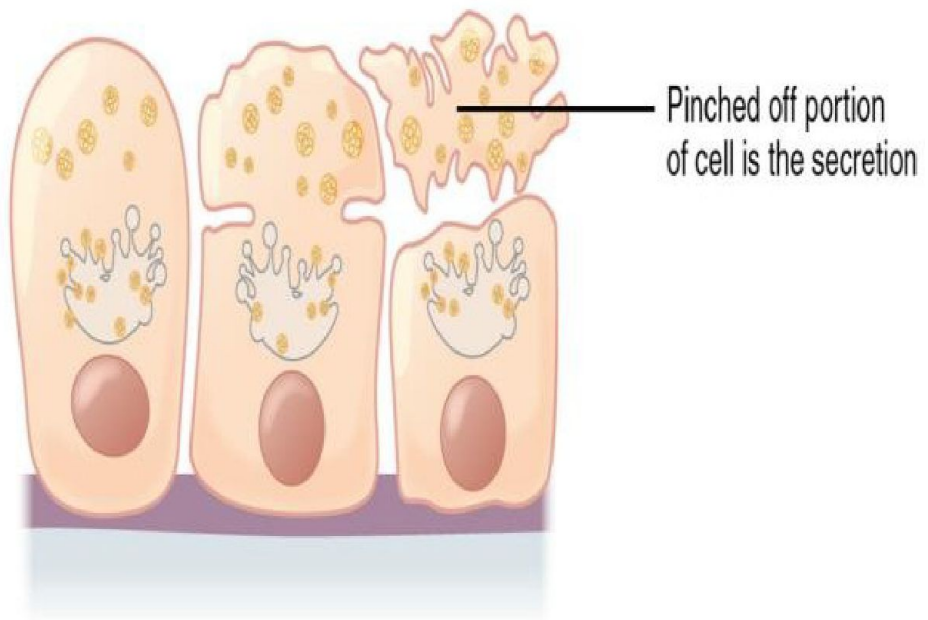
3. Mixed glands Ex : digestive tract . Ex : Thyroid gland . Ex : Pancreas gland .

B) According to method of secretion :

1. Merocrine gland → Ex : Pancreas gland , salivary glands .

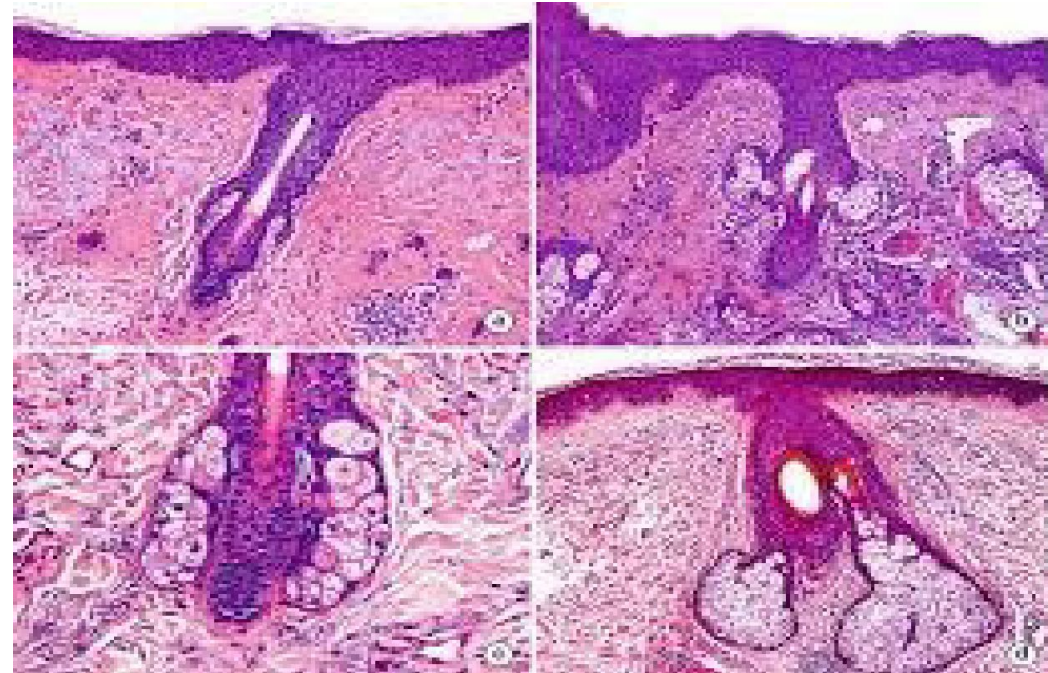
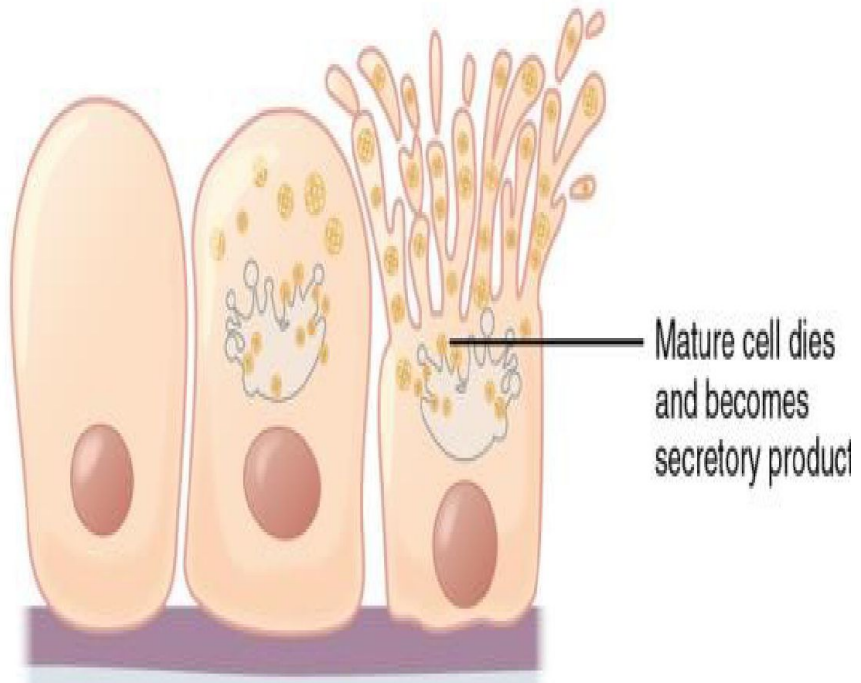


2. Apocrine gland



3. Holocrine gland

Ex : sebaceous gland .



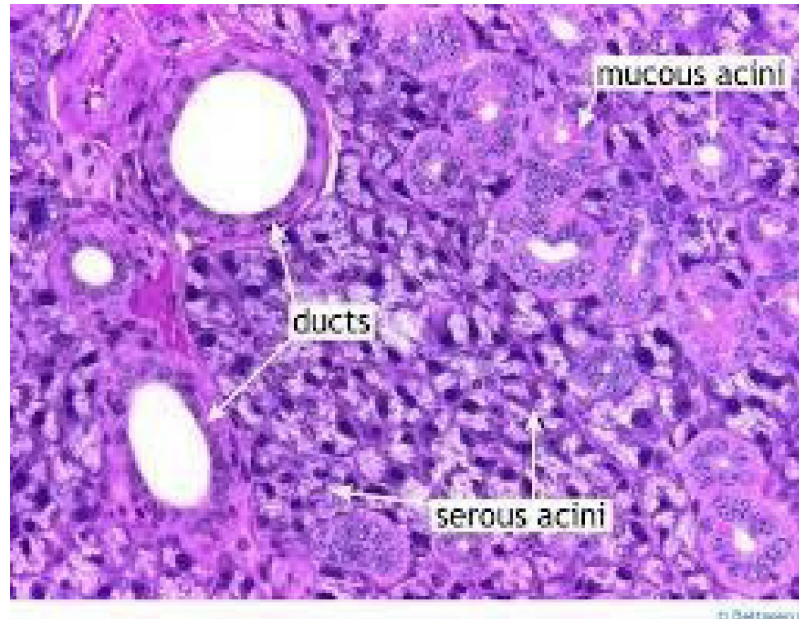
C) According to product secreted :

1. Serous gland → Ex : Parotid salivary gland . Ex : Palatine gland

2. Mucous gland → :Ex : Sub maxillary gland , Sub mandibular gland

3. Mixed gland

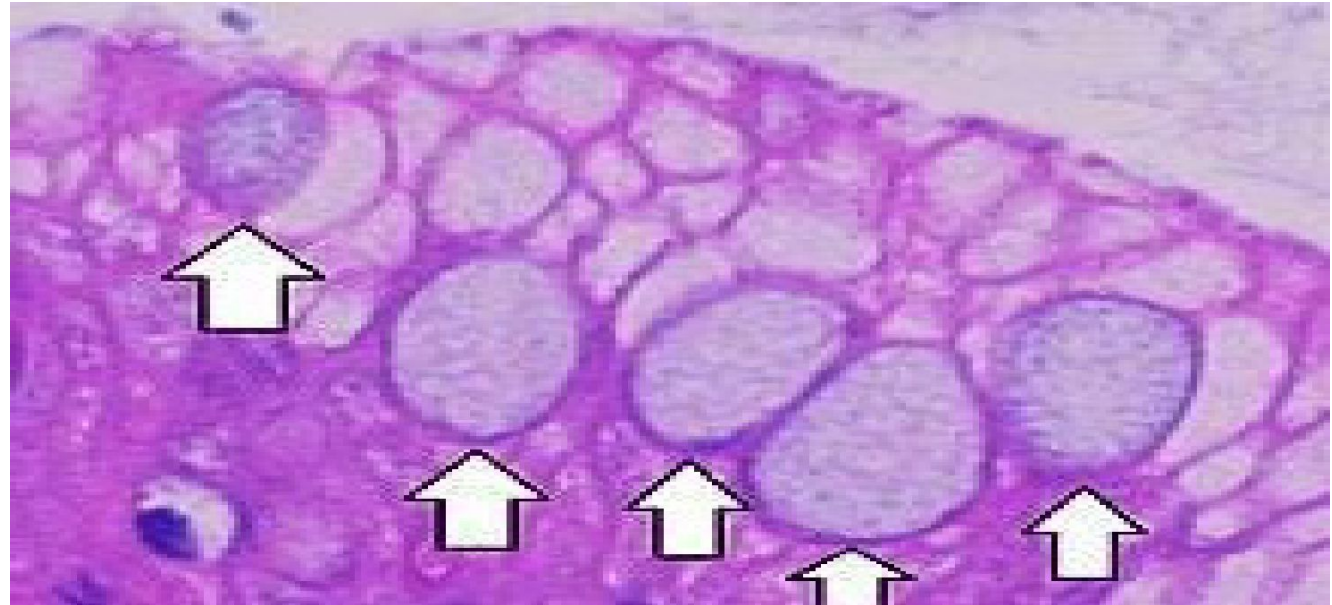
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D)According to number of cells :

1.Unicellular glands EX : Goblet cells .

2.Multicellular glands .



Multicellular glands :

Simple multicellular glands :

1. Tubular gland::



Ex : Intestinal gland .

2. Coiled tubular gland:



Ex : Sweat glands .

3. Branched tubular gland



Ex : Uterine glands .

4. Acinar gland



Ex : Toxin glands in frog skin .

5. Branched acinar gland



Ex : Sebaceous glands .

Compound multicellular glands :

- 6. Compound tubular gland → EX : Brunner's glands of the duodenum .
- 7. Compound acinar gland → EX : pancreas gland .
- 8. Compound tubuloacinar → EX : Salivary gland , lacrimal gland .



Simple tubular



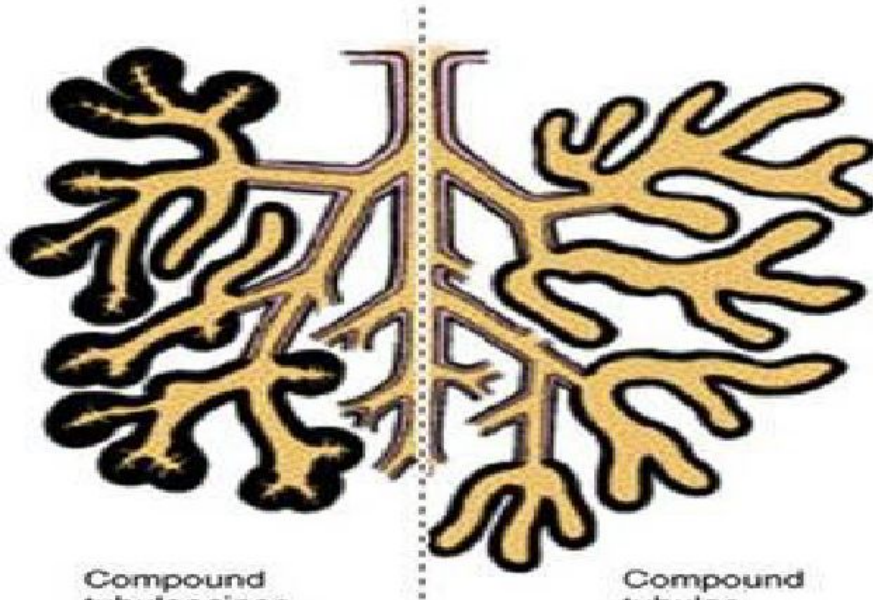
Simple coiled tubular



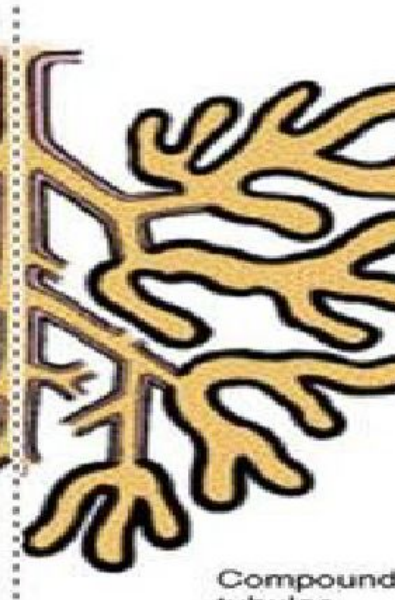
Simple branched tubular



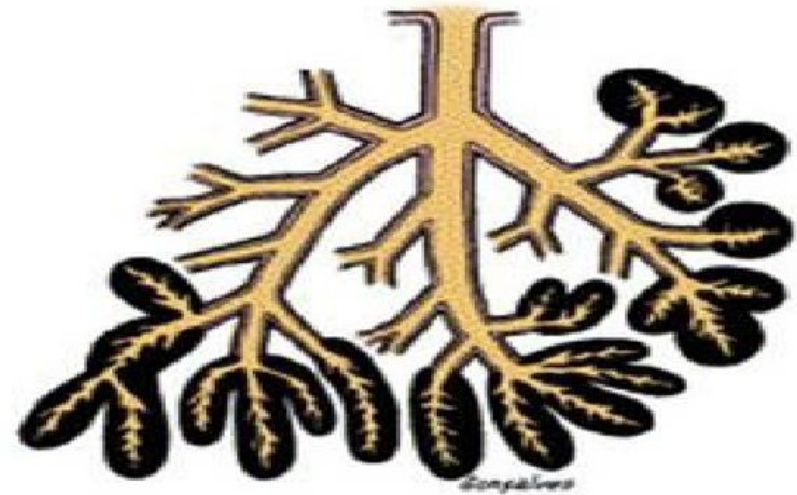
Simple branched acinar



Compound tubuloacinar



Compound tubular



Compound acinar

Discussion :-

1-What are glands?

2-What are two types of glands?

References

- Pathologic basis of diseases, A57 edition, 2012.

Any questions?

*Thank
You*