SAWA UNIVERSITY

Fundamentals of fluids detection and secretions

Digestive system secretions (saliva)

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Digestive system

The digestive system is specialized for the process of digestion it consists of the digestive tract that is consisted of organs through which food and liquids pass during their processing in the form absorbable in to the bloodstream, this system also consists of structures through which waste pass in the process of elimination and other organs that contribute juices necessary for the digestive process.

Saliva:

Saliva is an essential body fluid which plays a key role in the digestion process, It is kept the oral cavity moist by coating the teeth and the mucosa. it is a complex fluid, produced by the salivary glands. It is maintenance of oral health by preventing infections from developing in mouth or throat.

Salivary Glands:

They are exocrine glands make saliva and empty it into mouth through openings called ducts to the oral cavity. They secrete an enzyme called amylase, which helps in the breakdown of starch into maltose and help swallowing and chewing.

There are two types of salivary glands:

1. *The major salivary glands*
2. *The minor salivary glands*

1. Major Salivary Glands:

The major salivary glands are the largest and most important salivary glands. They produce most of the saliva in mouth.

There are three pairs of major salivary glands:

- Parotid Glands
- Submandibular gland
- Sublingual gland

The parotid glands:

The parotid glands are the largest salivary glands. They are located just in front of the ears. The saliva produced in these glands is secreted into the mouth from a duct near upper second molar. Each parotid gland has two parts, or lobes.

Submandibular Glands:

The submandibular glands are located below the jaw. The saliva produced in these glands is secreted into the mouth from under the tongue. It have two lobes.

Sublingual Glands:

The sublingual glands are the smallest of the major salivary glands. These almond-shaped structures are located under the floor of the mouth and below either side of the tongue.

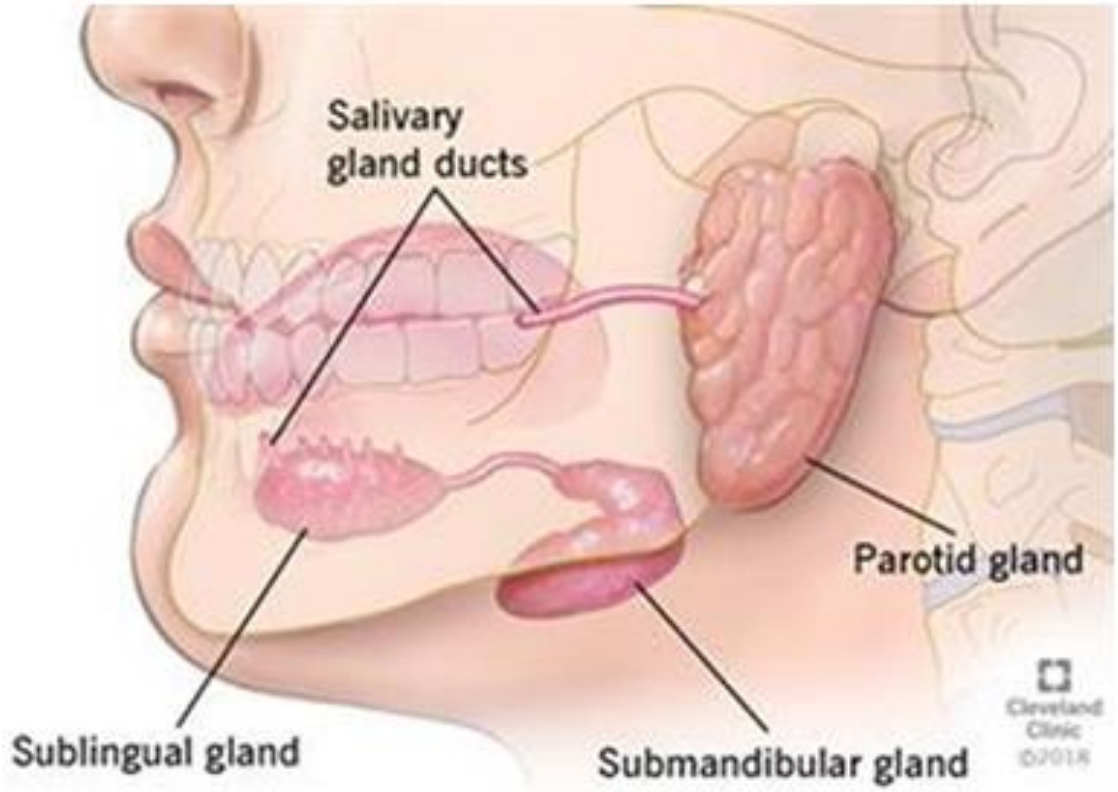

Figure (1): Types of salivary glands

2. Minor Salivary Glands :

There are hundreds of minor salivary glands throughout the mouth and the aerodigestive tract. Unlike the major salivary glands, these glands are too small to be seen without a microscope. Most are found in the lining of the lips, the tongue, and the roof of the mouth, as well as inside the cheeks, nose, sinuses, and larynx (voice box).

The composition of saliva

Saliva consists of water (99.5%), inorganic salts and enzymes (0.2%), and proteins (0.3%). It is synthesized and secreted by the salivary glands (SG

The functions of saliva

Both the salivary components and the viscoelastic properties are responsible for the functions of saliva, which can be organized into:

(1) Lubrication and moistening.

(2) Microbial homeostasis and protection.

(3) Digestion, bolus formation and clearance.

(4) Taste and smell.

(5) Buffering.

(6) Mineralization

(7) Wound healing.

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Any questions?