



بسم الله الرحمن الرحيم

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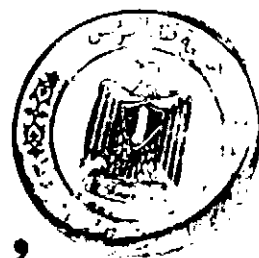
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COMPARATIVE STUDY OF WEBER'S GLANDS IN HUMAN BEINGS AND OTHER ANIMALS

**(Histological, Histochemical and Number
Identification)**

*Thesis Submitted for Partial
Fulfillment of Master Degree
In Oral Biology and Oral Pathology*



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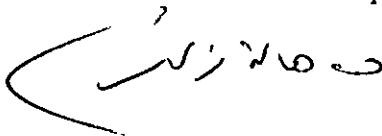
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To

My Parents ..

My Husband ..

&

My Son.

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INTRODUCTION

I. Introduction

Minor salivary glands are small mucosal exocrine glands. They begin their development during the third month of fetal life, their secretion contributes for about 7% of the total volume of the secreted saliva. It is primarily muco-protein rich secretion with a high secretory IgA concentration.

They are non-encapsulated, consisting of clusters of acini, each is drained by short ducts directly into the oral cavity with accumulation of lymphocytes around the duct walls. They are located within the fibres of connective tissue of the submucosa or muscle fibres of the lip, cheek and tongue.

Minor salivary glands may be serous, mucous or mixed. The moistening and lubricating functions of saliva are performed by its water and glycoproteins content.

The glycoproteins are synthesized mainly by the mucous cells and to a lesser degree by the serous ones, while the fluids produced by the serous glands act as solvents for the substances that stimulate the taste buds and wash away debris.

Saliva has a digestive role, its amylase enzyme starts hydrolysis of carbohydrates inside the mouth before reaching the stomach. The lingual lipase enzyme is capable of hydrolyzing the triglycerides, helping in emulsifying the fats increasing the efficiency of the pancreatic lipase especially in new borns.

Salivary glands also have an antibacterial role defending the oral cavity against pathogens by secreting lactoferrin, lysozyme and peroxidase enzymes, they synthesize the secretory component necessary for the transport of secretory IgA across the oral epithelium.

Minor Salivary Glands are named according to their location as :

A. Labial and Buccal glands :

Are mixed glands predominantly mucous, the labial glands are divided into superior and inferior, the buccal are described as continuation of the labial ones.

B. Palatine glands :

Are pure mucous glands located as glandular aggregates in the submucosa of the postero-lateral region of the hard palate, soft palate and uvula.

C. Glosso palatine glands :

Are pure mucous glands, form part of the mucous ring and are located in the isthmus region in the glosso palatine fold.

D. Lingual glands : are divided into several groups.

i. **Anterior lingual glands :** (glands of Blandin and Nuhn)

Located near tongue apex and open on its ventral surface near the lingual frenum, its anterior part is chiefly mucous and its posterior portion is mixed.

ii. **The posterior lingual glands :**

a. *The posterior von Ebner's lingual glands*: are located between muscle fibres of the tongue and open into the trough of the circumvallate and the rudimentary foliate papillae.

b. *The posterior Weber's lingual glands* : located lateral and posterior to the circumvallate papillae under the lingual tonsillar tissue, the ducts open on to the dorsal surface.

**REVIEW OF
LITERATURE**