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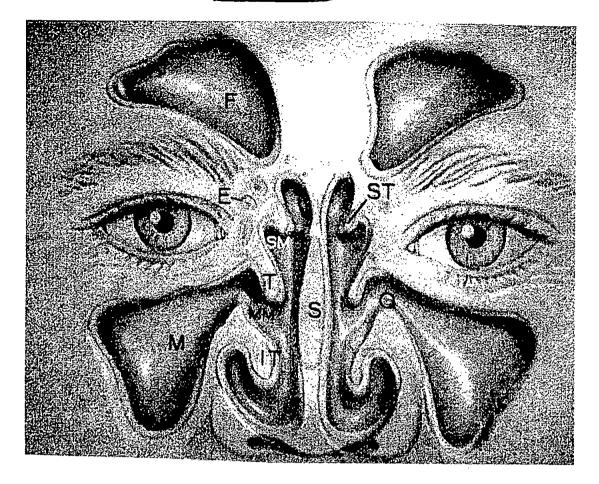
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Role Of Middle Turbinate in Sinusitis

Role of middle turbinate In sinusitis

Thesis
Submitted for partial fulfillment of
The Master degree
In E.N.T

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بسم الله الرحمن الرحيم

نرفع درجات من نشاء

وفوق كل ذى علم عليم

(ایة ۷۱-سورة یوسف)

To My Parents

Acknowledgement

I wish to express my deep thanks to Prof. Dr. Mahmoud Raghib El- Sharif, Prof of E.N.T, Faculty of medicine, Assiut University for supervising this thesis. Without his guidance, suggestions and patience, this work would have not been completed.

I am indebted to Dr. **Ezzat. M. Saleh** assist. Prof. of E.N.T, Faculty of medicine, Assiut University for suggesting the point and supervising this work all the way through. His continuous guidance, encouragement and close follow up during the course of this work are highly appreciated.

My great thanks are due to Dr. Mohamed. M. Kamal Assiut. Prof. E.N.T department Assiut University who was very helpful with his experience in F.E.S.S and his valuable advises.

I am indebted to both Dr. Montaser Abd El-salam and Dr. Usama Rashad, for their valuable help and assistance.

Thanks are also extended to all respectable staff members of E.N.T for their decent treatment and generous hospitality.

Yasser el-attar

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INTRODUCTION AND AIM OF WORK

Both inferior and middle turbinates have important implications in nasal physiology. The inferior turbinate participates actively in control of inspired airflow and can induce, in some cases, obstruction.

Surgery of inferior turbinate is strictly restricted to cases resistant to appropriate medical treatment and after clear diagnosis of the underlying disease. Cryosurgery, sub-mucosal cautery and utilization of laser can produce significant reduction of the turbinate volume with maximal preservation of the turbinate function [Cauweberge, 1999].

The middle turbinate has close contact with the lateral wall of the nasal cavity and, in case of abnormal form or position, can obstruct the normal sinus drainage and ventilation. Its precise role in sinusitis and nasal obstruction is still difficult to judge [Cauweberge, 1999].

Resection of the middle turbinate is controversial procedure. Currently, the rhinology literature is unclear regarding the preferred intraoperative management of the middle turbinate during endoscopic sinus surgery [Scott and Duncavage, 1998].

The desired aim of this study is to identify any anatomical abnormalities of the middle turbinate that contribute the development of rhinosinusitis. This includes:

1. The incidence of the middle turbinate abnormal position and forms (hypertrophied middle turbinate, concha bullosa, paradoxically curved

middle turbinate, etc) in association with different types of sinusitis (acute, chronic, subacute, and recurrent sinusitis).

- 2. Impact of the surgical interference of the abnormal middle turbinate, on the sinusitis.
- 3. The complications of such surgery.

Review

Review

Anatomy of lateral wall of the nasal cavity

Lateral wall of the nose is formed mainly by:

- Medial wall of the maxilla.
- Lateral mass of ethmoid and lacrimal bones.

Other contributions are derived from:

- Ascending process of the maxilla, anteriorly.
- Perpendicular part of palatine bone, and behind it, medial ptrygoid process of sphenoid, posteriorly.

The main features of the lateral wall of the nose are:

- *Three turbinates*: superior, middle and inferior.
- <u>Three meatus:</u> named after the turbinates. Each meatus lies below and lateral to corresponding turbinate.
- <u>Spheno-ethmoidal recess</u>: lies above the superior turbinate and receives ostium of the sphenoid sinus. (figure. 1)

Inferior turbinate:

It is the largest turbinate. This structure is composed of a separate bone, the inferior concha, which has an irregular surface, perforated and grooved by vascular channels to which mucoperiosteum is firmly attached. The bone has a maxillary process, which articulates with the inferior margin of the maxillary hiatus. It also articulates with ethmoid, palatine and lacrimal bones, completing the medial wall of the nasolacrimal duct [Stammbenger, 1995 and Kennedy, 1995].