hossam maghraby

شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

hossam maghraby

شبكة المعلومات الجامعية

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

hossam maghraby

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

hossam maghraby

شبكة المعلومات الجامعية

بعض الوثائق الأصلية تالفة

hossam maghraby

شبكة المعلومات الجامعية

بالرسالة صفحات لم ترد بالأصل

A PROSPECTIVE COMPARATIVE STUDY BETWEEN FUNCTIONAL ENDOSCOPIC SINUS SURGERY AND MEDICAL TREATMENT IN CASES OF CHRONIC SINUSITIS

THESIS

Submitted for Partial Fulfillment of the Requirement of
MD Degree in Otolaryngology

By

Alaa Mohamed Farid,M.Sc.,
Assistant lecturer of Otolaryngology

Supervisors

Prof. Dr. Mohamed Noshy El-Atriby
Prof. and head of Otolaryngology Department,
Faculty of medicine, Suez Canal University

Prof. Dr. Nagy Michael Iskander
Prof. of Otolaryngology
Faculty of medicine, Suez Canal University

Faculty of Medicine
Suez Canal University
2000

Abbreviations

1- AAOA: American Academy of Otolaryngic Allergy.
2- AAO-HNS: American Academy of Otolaryngology- and Head and Neck Surgery.
3- AR: Acoustic rhinometry.
4- ARS: American Rhinologic Society.
5- CBF: Ciliary beat frequency
6- CT: Computed tomograply
7- DS: Deviated septum
8- FDA: Food and Drug Administration.
9- FESS: Functional endoscopic sinus surgery.
10- GERD: Gastroesophageal reflux disease.
11- GT: Graphite test
12- ICST: indigocarmine saccharin transport time
13- MCA: Minimal cross-sectional area.
14- MCC: Mucocilliary clearance
15- MRI: Magnetic resonance image.
16- NV: Nasal volume.
17- OMC: Osteo - meatal complex.
18- RSDI: Rhinosinusitis Disability index
19- ST: Saccharin test
20- TCA: Total cross-sectional area.
21- UPSIT: University of Pennsylvania Smell Identification test.
22- URTI: Upper respiratory tract infection.

Acknowledgment

First and foremost thanks are due to God; the most benificient, unlimited and continuous blessing to me.

I would to express my deep appreciation to ***Prof. Dr. Mohamed N. El-Atriby***, Professor and Head of Otolaryngology unit, Head of Special Surgery Department, Suez Canal University for his generous guidance, great encouragement and valuable super vision during this work. Without his help this work could have never been fulfilled.

I feel also grateful to ***Prof. Dr. Nagy M. Iskander***, Prof. of Otolaryngology, Suez Canal University, whose wisdom and experience are endless source of help for all his students. Having a scientific personality and a kind heart, much was gained from him.

I'm extremely grateful to ***Dr .Adel Abdel -Maksood*** ,Assistant Prof. Of Otolaryngology ,***Dr. Diaa M. El-Hennawy*** Assistant Prof. of Otolaryngology, and ***Dr. Tarek F. Youssef***, Lecturer of Otolaryngology, Faculty of medicine, Suez Canal University, for their sincere and intelligent efforts in performing this work.

At last, but not least, I would like to express my great gratitude to all staff members and colleagues in Otolaryngology Department, Faculty of medicine, Suez Canal University.

CONTENTS

Introduction

INTRODUCTION

Sinusitis is one of the most common health complaints leading to a physician office visit. The prevalence of acute sinusitis is 35.6% while that of chronic sinusitis is as high as 64.4% of the total cases of sinusitis, **Hahn and Lefkowitz 1994.** Also, sinusitis is one of the leading causes for antibiotic prescriptions, restricted activity days, and very high total direct and indirect medical costs, **Kaliner et al 1997.**

Benson and Marano 1994 reported an incidence of 14.7% for chronic sinusitis in the United States, with rates relatively high among children, middle aged and females. While **Abdel Azim 1995** found that it was the commonest chronic illness for all age groups representing 12.5% of the general population in Egypt.

Gliklich and Metsen 1995 noticed that chronic sinusitis causes great decrements in quality of life in the domains of general health perception, vitality and social functioning comparable to serious diseases, such as chronic obstructive pulmonary disease and angina pectoris.

As the lining of the nose and the paranasal sinuses is continuous, inflammatory processes tend to involve both areas to a greater or lesser extend. Rather than distinguishing rhinitis and sinusitis separately, rhinosinusitis has become a suitable descriptive term. But, the term "sinusitis"is still used althrough the world by the "General practitioners"and "Otolaryngologists", **Weir and Golding-Wood 1997.**

In spite of extensive research, there is still a confusion about the diagnosis and classification of chronic sinusitis. There are different modalities of treatment of chronic sinusitis such as: acupuncture, and physiotherapy, but the two main lines are the medical and surgical treatment, **Anand et al 1997.**

The medical treatment includes: antibiotics (local and systemic), mucolytics, alkaline nasal lotion, humidification, decongestants (local and systemic), antihistamines (local and systemic), steroids (local and systemic), analgesics, mast cell stabilizers, and immunotherapy, **Benninger et al 1997.**

The surgical treatment includes: **non-specific** lines such as: removal of foreign bodies, polypectomy, turbinectomy, adenotonsillectomy, and septal surgery, and **specific** lines directed to the sinuses per se, **Anon 1997.**

The specific sinus surgery includes the traditional operations such as puncture and lavage, intranasal inferior meatal antrostomy, radical antrostomy, and its modifications, and the functional endoscopic sinus surgery. The ideas about the traditional operations were that the successful treatment of the maxillary sinus was important for all other sinuses, and the MCC occurs by gravity. The advances in diagnostic techniques such as office endoscopy and CT scanning illustrated the

importance of the OMC, while the advances in MCC tests proved that it occurs towards the natural ostium and not to the dependant antrostomy, **Knops et al 1993.**

Since then, the endoscope was used to eradicate the disease in the anterior ethmoid cells, thus relieving the obstruction in the OMC and to enlarge the natural maxillary ostium, thus restoring the functions of ventilation and MCC with minimal tissue excision. Then the endoscope was used extensively in the diagnosis and treatment of many sinonasal complaints as tumors, cerebrospinal rhinorrhea, dacryocystorhinostomy, and investigating the causes of hyposmia, **Setliff 1997.**

Rationale

Despite extensive research, rhinologists have not agreed upon the best line of treatment for chronic sinusitis. And by reviewing the literature, there was no published study in Egypt applying the criteria of the AAO-HNS, or trying to measure the outcomes of chronic sinusitis.

So this study was intended to apply the previous criteria in the diagnosis, prognosis, and follow up of Egyptian patients with chronic sinusitis after receiving either medical or surgical treatment. Also, it was intended to measure the outcomes of the disease before and after medical and surgical treatments.

Aim of the work

AIM OF THE WORK

The aim of this study is to compare FESS and medical treatment in cases of chronic adult rhinosinusitis as defined by (AAO-HNS) in terms of relief of symptoms, physical signs, safety, effect on nasal functions, endoscopic, radiological findings and quality of life.

Hypothesis:

FESS is more superior than medical treatment in the improvements of symptoms, signs, major criteria, minor criteria, endoscopic picture, CT scanning, ST, MCA, TCA, NV, complications, and RSDI.

Null Hypothesis:

Medical treatment is more superior than FESS in the improvements of the previous parameters.

Study Questions:

Q_1: What are the effects of FESS on the incidences, and rates of: symptoms, signs, major criteria, minor criteria, endoscopic picture, CT scanning, ST, MCA, TCA, NV, complications and RSDI?

Q_2: What are the effects of medical treatment for one month on the previous incidences and rates?

Q_3: Are the previous effects statistically and\or clinically significant?

Q_4: What is the best line of treatment of every patient of chronic sinusitis?