



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومات الجامعية
@ ASUNET



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

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



يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of
15-25- c and relative humidity 20-40%

بعض الوثائق الأصلية تالفة

بالرسالة صفحات لم ترد بالاصل

**COMPARATIVE STUDY BETWEEN COMPLETE EN-BLOC
EXCISION WITH MIDLINE CLOSURE AND KARYDAKIS
TECHNIQUE IN TREATMENT OF PILONIDAL SINUS**

Thesis

**"SUBMITTED FOR PARTIAL FULFILLMENT OF THE
REQUIREMENTS OF MASTER DEGREE"**

In

" GENERAL SURGERY"

By

**AHMED HUSSIENY AHMED AL.BARBARY
(M.B., B.CH)**

Supervisors

**Prof. Dr.
MOHAMMED MAHER LOTFY
EL- GENGEHY**
Professor of Gastrointestinal Surgery & Endoscopy
Faculty of Medicine
Tanta University

**Prof. Dr.
MOSTAFA MOHAMMED EL-SHEIKH**
Professor of Gastrointestinal Surgery & Endoscopy
Faculty of Medicine
Tanta University

**Prof. Dr.
SOLIMAN MOHAMMED SOLIMAN**
Professor of Gastrointestinal Surgery & Endoscopy
Faculty of Medicine
Tanta University

**Faculty of Medicine
Tanta University
2002**

12/5/02



ACKNOWLEDGEMENT

First of all and above all, I always feel indebted to *Allah* whose blessings cannot be counted.

I wish to express my deep gratitude to Prof. Dr. Mohammed Maher Lotfy El-Gengehy, Prof. of Gastrointestinal Surgery and Endoscopy, Tanta University for his kind help, fatherly guidance, continuous encouragement and unlimited support that made the completion of this work possible.

I would like to express my endless appreciation to Prof. Dr. Mostafa Mohammed El-Sheikh, Prof. of Gastrointestinal Surgery and Endoscopy, Tanta University for his helpful suggestion, kind supervision throughout this work.

I would also like to express my warmest thanks and gratitude to Prof. Dr. Soliman Mohammed Soliman, Prof. of Gastrointestinal Surgery and Endoscopy, Tanta University for his continuous help, encouragement and his kind constructive criticism.

I am deeply indebted to Dr. Abdel-Monem Nagi, Ass. Prof. of Gastrointestinal Surgery and Endoscopy, Tanta University for his endless cooperation and guidance.

I would like to extend my thanks to my patients, my colleagues and to the nurses and workers in the General Surgery Department who all participate sincerely in completing this work.

Last, but not least, I am really indebted to my parents who offered me their fruitful love, help and encouragement.

CONTENTS

Introduction	1
Review of Literature	
Historical Review	3
Surgical Anatomy of Sacrococcygeal Region	5
Etiology and Pathogenesis	6
Epidemiology	12
Pathology	13
Microbiology	15
Clinical Presentation	16
Differential Diagnosis	20
Complications	22
Management of pilonidal disease	25
 Aim of the Work	 53
 Patients & Methods	 54
 Results	 67
 Discussion	 76
 Summary & Conclusion	 85
 References	 89
 Arabic Summary	

Introduction

INTRODUCTION

Pilonidal disease includes some clinical phenomena, which occur in the soft tissues overlying the sacrococcygeal region. *Hodges (1880)*; introduced the name; pilonidal sinus disease. It consists of a cyst containing thin brownish fluid and epithelial debris or of a sinus tract or tracts with one or more openings on the skin in or near the natal cleft. Hairs are found in the cyst or protruding from the sinus opening (*EL-Kilany et al., 1988*). Pilonidal disease may first present with an abscess (*Bissett & Isbister, 1987*).

Most pilonidal sinuses resolve with treatment by the age of 40 years irrespective of the method of treatment, this encourages surgeons to believe that their method of treatment is adequate and that there is no compelling need to change (*Allen-Mersh, 1990*). The observation that the onset of pilonidal disease coincides with puberty and that de-novo pilonidal disease is rare after the age of 40 years (*Clothier & Haywood, 1984*) is compatible with association with sex hormones which are known to affect pilosebaceous gland (*Price & Griffith, 1985*). This may explain the earlier onset of the condition in women since puberty occurs earlier in females than in males (*Allen-Mersh, 1990*).

The external orifice of the pilonidal sinus is generally in the midline of the presacral region few inches above the anus, from it a primary tract extends into the subcutaneous tissue in a cephalad direction for a variable distance often expanding into a terminal cavity (*Golz et al., 1980*). Secondary tracts, almost always directed sideways, are often found and connect the deep part of the primary tract to the sinus opening lying to one or other side of the midline (*EL-Kilany et al., 1988*).

Epithelial lining is present in the extreme superficial end of the primary tract, while the secondary tracts and the deep expanding portion of the primary tract are usually lined with granulation tissue (*Golz et al., 1980*).

Anderson (1847); made the first record of surgical cure of a pilonidal sinus; he described incision with removal of hair from the cavity. Many procedures have been described for the management of symptomatic pilonidal sinus, none of which are perfect. The ideal operation should be simple to perform and have a low recurrence rate when performed by surgeons with a range of different experience and skill. Healing should be rapid and complete with minimal need for aftercare. No single operation fulfils these requirements (*Phillips, 1998*).

In this study the clinical types, complications and two methods of treatment of pilonidal disease will be evaluated and the results will be compared with the results of other centers.

REVIEW OF LITERATURE

REVIEW OF LITERATURE

HISTORICAL REVIEW

The condition was originally reported by *Anderson (1847)*; in a letter to the editor of The Boston Medical Surgical Journal and was subsequently named "pilonidal sinus" by *Hodges (1880)*; who believed that the cause of pilonidal sinus is due to ingrowth of the hair of the postanal region as the result of unclean habits and erosion of skin (*Corman, 1993*).

Stone (1931); suggested that possibly pilonidal sinus in man was some form of vestigial preen gland (in birds) which is oil gland embedded in subcutaneous fat over last vertebrae while *Kooistra (1942)*; believed that pilonidal sinus developed from persistent caudal remnant of medullary canal.

Again the acquired theory gained popularity and was proposed by *Patey and Scarff (1946)*; they proposed that hairs derived from the surrounding skin and have somehow introduced into the tissues causing the sinus, this was demonstrated by the discovery of pilonidal sinus in other sites, such as the finger web, the axilla and amputation stump, where no question of a congenital sinus arises.

Currently, the debate on the etiology of pilonidal sinus centers on two main theories. One theory is that pilonidal disease is the result of a foreign body reaction to hairs embedded in the skin, commonly in the midline sacrococcygeal area (*Karulf & Perry, 1998*).

Patey and Scarff (1946); noted that although pilonidal tracks contain hair, they do not always contain hair follicles. This would suggest that the hair and not the follicle is the source of the disease (*Karulf & Perry, 1998*).

An alternative theory proposed by *Bascom (1980)*; is that the origin of pilonidal disease is in the hair follicles of the natal cleft.