MANAGEMENT OF PILONIDAL SINUS

Thesis

SUBMÉTTED FOR PARTIAL FULFILLMENT OF M.S. DEGREE IN GENERAL SURGERY

YASSER MOHAMED LEATHY M. B., B. CH.

By

54049

617 355 Y . 1

Supervised By

Dr. MOHAMED HESHAM ZEITON

Ass. Prof. of General Surgery Faculty of Medicine, Ain Shams University

Ass. Supervisor

Dr. ASHRAF OMER MAHMOUD

Lecturer of General Surgery
Faculty of Medicine, Ain Shams University

Mac Osma

Facutly of Medicine Ain Shams University

1996





CONTENTS

		PAGE
-	INTRODUCTION.	1
-	ETIOLOGY.	8
-	CLINICAL PICTURE.	16
-	DIFFERENTIAL DIAGNOSIS.	17
-	TREATMENT.	18
	I- Treatment of acute pilonidal sinus.	19
	II- Excision - healing by open granulation.	21
	III- Excision and decayed closure.	24
	IV- Excision and primary closure.	30
	V- Marsupialization.	34
	VI- Excision and closure with plastic Procedures	
	1- Z plasty operation.	36
	2- Excision and closure by rotation flap.	40
	3- Excision and closure by rhomboid flap	42
	VII - Oblique excision of pilonidal sinus.	45
	VIII- "D" excision method.	48
	IX - T or shaped method.	49
	X - Transverse incision method.	49
•	PATIENTS AND METHODS.	53
	RESULTS.	54
•	DISCUSSION.	55
	REFERENCES.	58
	ARARIC SUMMARV	60

LIST OF FIGURES

		Page
Fig. 1	: Bar graph showing percentage of male	5
	and female patients with pilonidal sinus.	
Fig. 2	: Bar graph showing age of onset of symptoms.	7
Fig. 3	: The stage of pilonidal disease.	15
Fig. 4,5	: Excision of pilonidal disease.	26-27
Fig. 6,7	: Excision and delayed closure.	28-29
Fig. 8	: Excision and primary closure.	33
Fig. 9	: Z plasty operation.	39
Fig. 10	: Rotation flap method.	41
Fig. 11	: Rhomboid flap method.	43-44
Fig. 12	: D operation method.	51
Fig. 13	: T or L shaped operation method.	52
Fig. 14	: Comparison between open and closed	57
	method as a result of study.	

ACKNOWLEDGMENT

A number of persons helped me to produce this work and it is a pleasure to thank them.

Firstly, Ass. Prof. Dr. *MOHAMED HESHAM ZEITON* was of a great help because of useful guidance and his support.

This work would not have come to light in the first place without the advice of Dr. ASHRAF OMAR to whome I owe affectionate thanks for his training and support.

I can not for get printing this work by Eng. SALAH HASANEN.



INTRODUCTION



INTRODUCTION

Pilonidal disease is a disease that consists of a sinus or fistula containing hair situated a short distance behind the anus. Pilonidal sinus was described by Anderson 1847 in a paper entitled "Hair arised from an ulcer" and Warren in 1854 reported on "Abscess containing hair in the nates.

It was first described by Hodges in 1880 when he used the term "pilonidal sinus" to describe a chronic infection that contains hair and was usually found between the buttocks. The term pilonidal comes from "pilus" means hair in Latin and "nidus" means nest and literally means "nest of hair (Hodges, 1880).

The condition have increased greatly in frequency and appeared to be particularly in Anglo-American Services during the 2 nd world war. The most individuals having this disease were jeep drivers. So, some authors refer to the pilonidal disease as "Jeep disease" (Goligher, 1984). Hodges and others believed pilonidal disease to be of congenital origin, and this thinking prevailed over the next three quarters of a century.

During the last half of the century, there has been a gradual change in thinking such that most authors now consider pilonidal disease to be an acquired disease (*Talbott*, 1990).

So, some, authors now believe that the establishment of pilonidal sinus results from the penetration of shed hair shafts through the skin, which leads to an acute or chronically infected sinus. This fact described by king's research in 1947 that the hairs present in a pilonidal sinus have their roots nearest the opening (King, 1947).

INCIDENCE

Pilonidal sinus usually affects adolescents or young adults, males more frequently than females. Racial variation in incidence appears to be associated with differences in body built and hairless, it's common in hairsute Greeks, but rarely in smooth skinned Orientals (*Thomas*, 1968).

It was noticed that the disease is much commoner in the military life than civilian life, this was attributed to conditions of military life which may be considered as predisposing factor to start symptoms (e.g. riding jeep, cars) (Hardway, 1968).

Most of pilonidal sinus occur in males a percentage of 71% of cases. The increased incidence in males is due to greater body hairless, and increased toughness of hairs in males than females (*Rainsbury and Southam*, 1982) (Fig. 1).

The average age of onset of symptoms was 21 years and the average age of admittion to hospital was 25 years in females. This age incidence usually explains the changes in skin and its appendages which occur under hormonal influences, and the development of the gluteal muscles at this time (Taylor and Hughes, 1984) (Fig. 2).

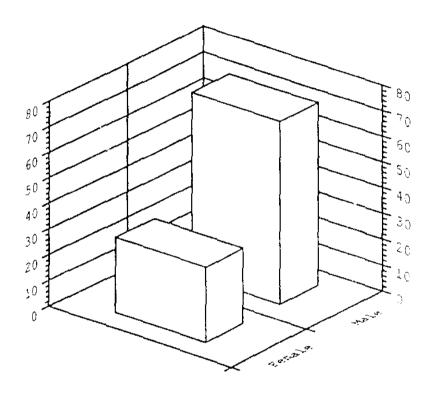


Fig. 1: Bar graph showing percentage of male and female patients with pilonidal sinus.

(Rainsbury and Southam, 1982).

The summary of incidence was described in collective studies by Kooistra (1942) of 300 cases. The studies showed that the average age of onset of symptoms are 21 years, admission to hospital are 25 years, sex incidence are 73.7 % males, rare in negroes, riding vehicles for long time is apparently an exciting factor and rare cases associated congential defects such as spina bifida (Kooistra, 1942).