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بالرسالة صفحات
لم ترد بالأصل

COMPARATIVE STUDY BETWEEN THE CLOSED METHOD VERSUS SEMI-CLOSED METHOD AFTER ENBLOCK EXCISION OF PILONIDAL SINUS

THESIS

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INTRODUCTION

INTRODUCTION

The term pilonidal originated from the Latin word "pilus" for hair and "nidus" for concavity and literally means nest of hair [1].

It is a serious problem for the patients who are usually young and active, and complications are common either resulting from the nature of the disease due to repeated abscess formation, pain and discharge, or resulting from surgical treatment [2,3,40].

Historical background

In 1847 Aderson reported a case of intergluteal infection which, later in 1880 Hodges called it pilonidal sinus, Mallory in 1892 postulated the first etiologic theory, in 1937 Buie reported the first surgical treatment [2].

Goligher[3] defined pilonidal sinus disease as epithelial lined track situated a short distance behind the anus and generally containing hair [3].Schwartz[4] defined it as hair containing sinus or abscess that involves the skin and the subcutaneous tissues in the post sacral intergluteal region.

The incidence of pilonidal sinus is high among population. About 1.1% of males and 0.11% of females have pilonidal sinus after puberty [5,46]. Because many patients live with the disease untreated and others harbor asymptomatic pilonidal sinus, the actual incidence of the disease is higher than the number of cases searching for

treatment[8]. It can occur at any age but, the most common presentation is from adolescence to the end of the 3rd decade of life[1,4,5,6].Average age of onset of symptoms is 21.5 years [3] .The disease is three times more in men than in women, women were affected at a slightly earlier age. Females to males ratio is from 3.1 to 7.1[1,3]. The condition is rare in negroes. It has never been reported in Indians [8,6]. Prolonged riding or driving increases the incidence of the disease [1,7].Some authors reported a positive family history [1,5].

Etiology:

Many theories related to the pathogenesis of pilonidal sinus have been reported which are either the :

I) Congenital theories:

1. Medullary canal vestige theory:

Cage [7] discovered that the caudal ruminants of the medullary canal may persist in the sacrococcygeal region and develop into pilonidal cysts which rupture and transform to pilonidal sinus [7].He described four grades of such sinuses:

1. Sacrococcygeal dimple.
2. True sinus.
3. Sinus extending down between the sacrum and coccyx and entering the sacral canal and may enter the durra mater.
4. Sinus communicating with the central canal of the spinal cord discharging cerebrospinal fluid.

The sinuses are lined with skin devoid of hair and usually open high in upper sacral region.

2. Traction dermoid theory:

This theory suggesting that the tail bud is attached to the skin of the coccygeal region in the midline and during development retrogression of the bud occurs so the skin is drawn into the subcutaneous tissue to form a sinus, it is present since birth and becomes deeper with growth due to further traction, the condition remains asymptomatic until infection occurs [3].

3. The inclusion dermoid theory:

Which suggests that the disease is due to ectodermal invagination from the skin surface which occurs during the third and fourth months of embryonic life.

According to this theory the pilonidal sinus disease is considered to be one variant of midline sequestration dermoid cysts [3].

II) Acquired theory:

The acquired theory is based on the assumption that falling hair from the back and nape of the neck penetrates into the skin and is pushed in by a suction effect between the moving buttocks, the observation of pilonidal sinus in other regions of the body, such as the web spaces of barbers, the umbilicus, the perineum, an amputation stump, the clitoris and the chest wall supports this point [9]. The fact that this disease is frequent only during adolescence and subsequent decades is in favor of an acquired etiology[5].

It was suggested that a sinus develops in two stages: In the first stage; various micro-organisms penetrate the skin in the sacral region causing cellulitis. This inflammation is encouraged by lack of

hygiene, obesity, continuous friction between the skin and clothes and between the buttocks with accumulation of sebum and repeated trauma. In the second stage; penetration of hair into the opened sinus with formation of foreign body reaction[6].

However, Brearley[9] reversed the previously mentioned process. He suggested that the sinus is formed first by a sharp penetrating hair (puncture sinus) and then the hair is sucked into the skin by the negative pressure created by the moving buttocks (suction sinus). He was able to measure the negative pressure manometrically and considered infection secondary to hair penetration. It was observed that an abscess and secondary track usually travel in a cephaled direction (as it is the path of least resistance), eventually rupturing through the skin into the sacrum[5].

Karydakis[10] and Kitchen[11] stated that the cause of the sinus is accumulation of loose hairs entering through the skin by their roots not hairs growing in the buttocks skin. The penetration of hair is facilitated by the presence of portal of hair entiry in the midline and those with a deep cleft.

Chamberlian and Vawter[12] examined the subcutaneous tissue from the sacral and coccygeal region in children up to the age of four years at postmortem. They found that each sinus communicated with the skin but no hair follicles or epidermal appendages were seen.