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PILONIDAL CYST ON THE VAULT

CASE REPORT

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ABSTRACT - Pilonidal cysts and sinuses are described as dermoid cysts which contain follicles of hairs and sebaceous glands. They clinically present as a classic case of inflammation which comes with pain, local infection and redness. The origin of pilonidal disease remains controverse. There are many hypothesis as lack of hygiene on the affected area and a penetration and growth of a hair in the subcutaneus tissue caused by constant friction or direct trauma on the damaged area. The option for clinical treatment is very frequent. However, taking into consideration the incidence and the possibility of recidive, surgical treatment is presently recommended. Complications include cellulitis and abscess formation. Pilonidal cysts are mostly found on the sacral region. In the literature is found description of pilonidal cysts on the penis, interdigital region on the hands as well as on the cervical region. We present a case of pilonidal cyst located on the vault biparietal region, without malignant degeneration.

KEY WORDS: pilonidal disease, dermoid cyst, epidermoid cyst.

Cisto pilonidal no crânio: relato de caso

RESUMO - Cistos ou seios pilonidais são descritos como cistos dermóides que contêm folículos pilosos, pêlos e glândulas sebáceas. Clinicamente se manifestam com quadro inflamatório clássico traduzido por dor, tumefação local e vermelhidão. A etiopatogenia dos cistos pilonidais permanece controversa. Há várias hipóteses dentre as quais a falta de higiene local e a penetração e crescimento de pêlo no tecido subcutâneo geralmente causado por atrito constante ou trauma sobre o local. A opção pelo tratamento conservador é frequente. Contudo, levando-se em consideração a incidência e a possibilidade de recidivas, esta patologia tem hoje sido tratada cirurgicamente. As complicações comuns do cisto pilonidal incluem celulite, formação de abscesso e recorrência do cisto após o tratamento. Cistos pilonidais são quase na totalidade das vezes encontrados na região sacro-coccígea. Encontramos na literatura descrição de cistos pilonidais no pênis, na região interdigital das mãos e região cervical. Apresentamos um caso de cisto pilonidal de localização biparietal no crânio, sem degeneração maligna.

PALAVRAS-CHAVE: cisto pilonidal , cisto dermóide, cisto epidérmico.

Pilonidal cysts are described as dermoid cysts containing hair follicles, sebaceous and sweat glands, clinically manifested by a classical inflammatory pattern: local pain, tenderness, heat and erythema[1]. Its etiology remains controversial[1-4]. However the absence of local hygiene associated with the penetration of hairy follicle into subcutaneous tissue due to local friction or trauma may constitute a probable cause[3,5,6]. The conservative treatment is often chosen, but the temporary disability,

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discomfort and the large probability of recurrence have made surgery the most prevalent choice[7-10]. Usual complications involve cellulitis, abscess and local recurrence after the surgical intervention. The malignant transformation is uncommon, with 44 cases described between 1990 and 1992 and calculated to occur in approximately 0.1% of all cysts[11]. The etiopathology of the neoplastic transformation is considered to be analogous to the one responsible for malignization of chronic wounds, ulcers, scars and fistula; potentially by natural repair mechanisms failure[11]. Pilonidal cysts are nearly always encountered over the sacro-coccigeal region. Few cases involving the penis, the neck or interdigital region have been described. Here we report a case on a vault biparietal pilonidal cyst without malignant transformation.

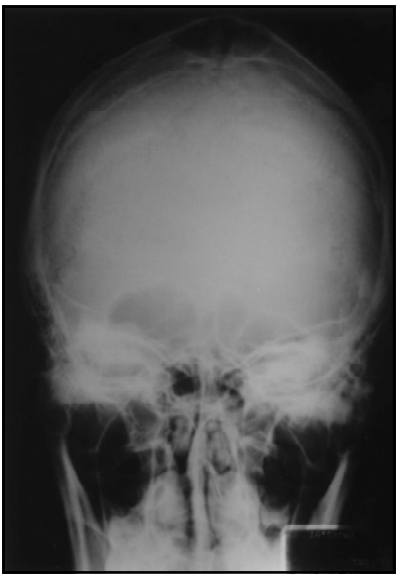

Fig 1. Patient's skull roentgenogram shows a lytic biparietal lesion.

CASE REPORT

L.A, a 20-year-old male, presented to our service complaining of intermittent irritability, verbal and physical hetero-aggressivity, troubled learning, phobia and obscessive disorders. He had severe acne disseminated throughout his body specially in the face and trunk. His previous medical history was unremarkable except for a sacro-coccigeal pilonidal cyst ablated 5 months before.

The physical examination revealed a right handed 9-year educated patient with a 58.5 cm cephalic perimeter, BA/AP of 34 cm, and an isolated right side Babinski sign along with a proeminent sagittal suture (the latter shared by other patient's relatives), as the only positive findings. The neuropsychological examination showed attention and concentration deficit followed by memory impairment associated with mental and physical lentification, tematic perseverations and conceptual and critical disabilities suggesting a fronto-temporo-lymbic disorder. A skull roentgenogram showed a lytic biparietal image with 3.6 x 4.7 cm in lenght. A CT scan and a MRI corroborated the extent and the pattern of the lesion.(Fig 1 and 2). The patient underwent a circular biparietal craniotomy followed by complete resection of the lesion and acrylic reconstruction of the bone failure. Specimens were sent to histological analysis, revealing a cyst with no epithelial lining and filled with multiple hairs with a foreign body granulomatous reaction, interpreted as a pilonidal cyst.

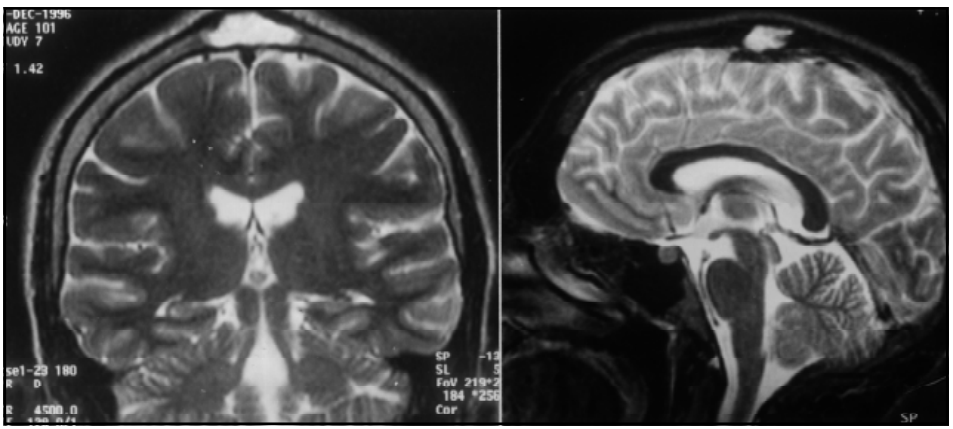

Fig 2. Patient's MRI; A: coronal T2-weighted section shows a biparietal lytic lesion without dural invasion ; B: sagital T2-weighted section showing the same lesion.

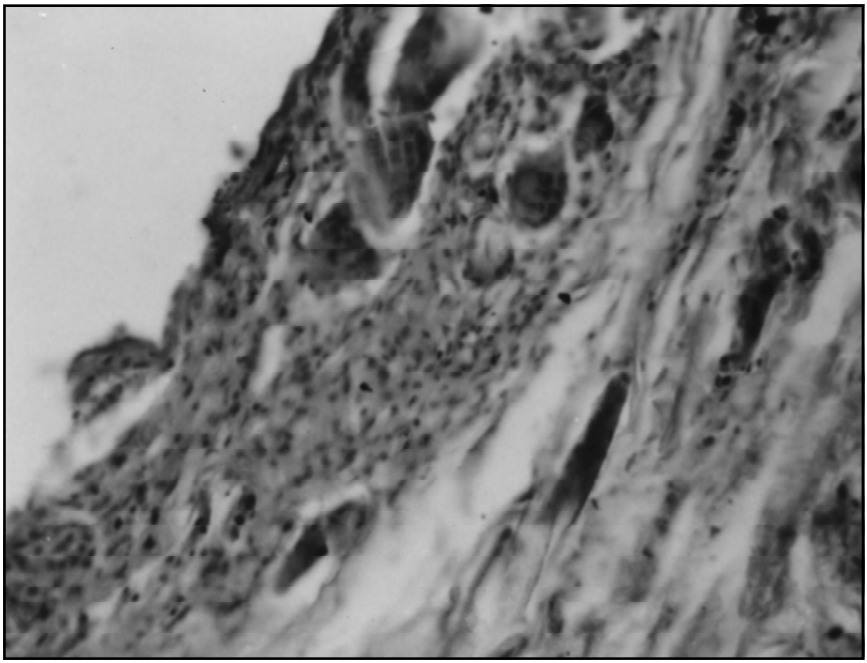

Fig 3. Wall of ruptured pilonidal cyst with foreign body giant cells (25 x).

Histopatology - The macroscopic examination consisted of a 7x5x1.5 cm section of flat bone containing an spherical cystic lesion with approximately 1.7cm of diameter filled by a large amount of hair. The cyst content, a soft and grayish mass with 0.6x0.5x0.2 cm was also analysed. The histological examination showed an intra-osseous cystic formation without epithelial lining, with a great quantity of hair follicles, flanked by granulomatous reaction. The diagnosis was compatible to a pilonidal cyst associated with a foreign body granuloma (Fig 3).

DISCUSSION

Two cystic central nervous system (CNS) lesions are most commonly encountered: the epidermoid cyst and the dermoid cyst[12,13]. The former is coated with an squamous epithelial cell layer, filled by keratin, cellular debris and cholesterol, and does not contain hair and other dermal elements which are seen in the dermoid tumor[12,14]. The latter is also covered by an epithelial layer, but contains adnexae (hair follicles, sweat and sebaceous glands) and adipose tissue. According to Rosenblum et al.[3], the dermoid cyst can also contain a fatty mass mixed with hair or just, as in the epidermoid cyst, keratin remnants.

Both the dermoid and the epidermoid cysts are originated from ectodermic elements sequestrated within and with association to the CNS, as a malformation that occur at certain points along the closure of the neural crest[12-14].

The presence of dermoid cysts associated with complex cranio-vertebral defects (as in bifid spine), spinal cord malformations and dermic sinus enhances this theory. Nevertheless, there have been described cases of acquired cysts, specially epidermic, resulting from traumatic or iatrogenic insertion of cutaneous tissue in the subdural space, whether cranial or spinal[5,6].

The dermoid cysts are always placed in the midline of the posterior fossa (vermis or 4th ventricle)[4]. When located above the tentorium, dermoid cysts are prone to a skull base frontal paramedian position[4]. In addition, a subgaleal pediatric variation occurs tipically in the anterior fontanel.

In the case presently reported we ruled out the diagnosis of an epidermoid cyst due to the presence of hairs and absence of a squamous epithelial cell layer. We did not find skin adnexae in the cyst wall, such as sebaceous and sweat glands, rendering the diagnosis of a dermoid cyst less likely, although not completely ruled out. Due to the histological aspect associated with the lack of a cranio-vertebral defect and a previous history of a pilonidal cyst in the sacral region, we prefer the diagnosis of a pilonidal cyst on the vault.

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