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A MASS IN THE BUTTOCK GROWING OVER 40 YEARS, A GIANT EPIDERMAL CYST

Case Report

40 YILDIR KALÇADA BÜYÜYEN KİTLE, DEV EPİDERMAL KİST

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ABSTRACT

Epidermal inclusion cysts are the most common benign soft-tissue lesions of the skin. It is typically recognized as a small and slow-growing palpable mass. We demonstrate an atypical case of a giant mass (11 cm) in the left buttock around the perianal area existing there for more than 40 years. Magnetic resonance imaging (MRI) and excisional biopsy were very helpful to confirm the diagnosis, while a surgical exicion was performed as the choice of treatment.

Key words: Mass, epidermal cyst

ÖZET

Epidermal kistler cildin en sık görülen iyi huylu yumuşak doku tümörleridir. Tipik olarak küçük, yavaş büyüyen ele gelen kitleler olarak kabul edilirler. Yazımızda 40 yıldır sol kalçada perianal bölgede büyümüş atipik kitlesi olan vakayı sunduk. Tedavi seçeneği cerrahi eksizyon iken, tanısında magnetic rezonans (MR) ve eksizyonel biyopsi yardımcı oldu.

Anahtar kelimeler: Kitle, epidermal kist

INTRODUCTION

Epidermal inclusion cysts are the most common cysts of the skin. They are more likely to occur on the face, scalp, neck and trunk due to the migration of epidermal components to the dermis. Those small, slow-growing benign tumors rarely reach more than 5 cm in diameter. For this reason, epidermal cysts are mostly diagnosed clinically and imaging is rarely performed. However, we describe a case of a giant epidermal cyst bordered between the anal and gluteal region which is considered to be a rare localization. To determine its exact size, nature and relationships with the neighboring organs using MRI was very essential (1,2,3,4).

CASE REPORT

A 51-year-old woman presented with a firm tumor-like mass on her left buttock close to the anal region. The patient's medical history revealed the she had been using medication for migraine on regular basis. She had had a surgical history of total abdominal hysterectomy and bilateral salpingo-oophorectomy. The patient had first noticed the mass at the age of 10, and since then, it had slowly enlarged through the previous 40 years to form a giant subcutaneous mass. Except for the presence of the enormous mass, the patient was asymptomatic. Physical examination

revealed a well-circumscribed, smooth-surfaced immobile 11 cm mass in the subcutis of the left buttock. The digital rectal examination showed neither a nodule nor a septum inside the mass. It was bordered on the anal region, and there was no fistula. However, the posterior wall of the mass was located deep into the gluteal and anal region muscles. Magnetic resonance imaging (MRI) showed a well-defined encapsulated cystic mass that was minimally hyperintense on T1-weighted images. The mass was hypointense on T2-weighted images but it showed minimal hyperintensity later. The inner dense debris revealed calcifications, high protein content and a critical hemorrhagic level within the cyst. The lower part of the detected lesion caused a mild deformity of gluteal fat tissues(Fig1a,b,c).

All the preoperative routine laboratory test results were within the normal limits. A surgical excision under general anesthesia in the lithotomy position was applied on the left gluteal region. An elliptic incision along with a skin island was used to completely excise the mass without rupturing its wall. Although the cyst was tightly surrounded by the anal sphincter muscles, the excision was delicately performed giving no harm to the muscles. After an appropriate hemostatic control, a drainage was inserted to the lesion. The excess skin was excised and the remaining edges were closed primarily with sutures. The patient was discharged one day later and the postoperative course was uneventful with no recurrence. Macroscopic examination showed us a 11x6.5x3.5 cm smooth-surfaced bi-locule cyst containing white-yellowish fluid. The histopathological report of the excisional biopsy confirmed the diagnosis as a giant epidermal inclusion cyst.

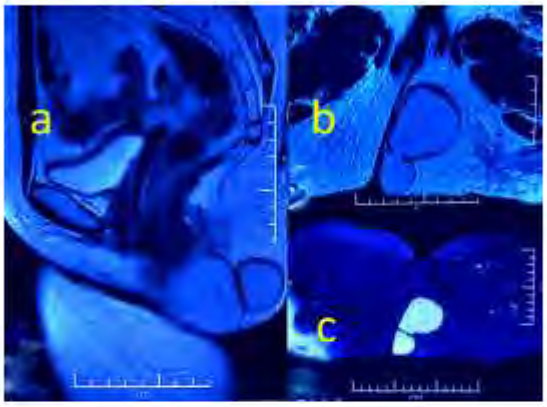

Fig1 a, b, c: Magnetic resonance imaging (MRI) showed a well-defined encapsulated cyctic mass that minimally hyperintense on T1- weighted images. The mass was hypointense on T2-weighted images.

DISCUSSION

Epidermal inclusion cysts are relatively common lesions comprising about 80-90% of all the excised subcutaneous cysts. These cysts usually arise at hair-bearing areas including the scalp, face, neck, trunk, and the scrotum (5). It is suggested that their etiology includes congenital factors, squamous metaplasia of columnar epithelium, HPV, inflammation of the hair follicle, and trauma which is considered to be the main cause (5,6). All those factors lead to the implantation of epidermal components into the dermis (1, 2, 3). Epidermal cysts may have several synonyms including sebaceous, epithelial, epidermoid, infundibular, and keratin cysts (1, 2). On histopathological evaluation, those cysts were found to be rich in keratin, protein, cholesterol, and cell membrane lipids (1, 2, 5). All are encapsulated with fibrous tissue and lined by a thin layer of squamous cells. These superficial palpable cysts are usually asymptomatic, and only recognized as a bump on the skin (6). This explains why some patients delay to seek medical care. Symptoms (pain, redness, pus-release, etc.) only appear when the cyst gets infected or has enlarged enough to deform the surrounding anatomical structures. Imaging is seldom preferred, since epidermal cysts are usually slow-growing unilocular lesions that rarely grow beyond 5 cm. However, when an

epidermal cyst occurs under a thick skin such as the buttock (as in our case), it can be multilocular and enlarge enough to have a high rupture risk (4). Consequently, preoperative imaging techniques as MRI and computerized tomography (CT) become vital (1, 2, 3, 4). Ultrasonography (US) is an easy and cheap method, but is usually preferred for smaller lesions, as it may not demonstrate the whole tumor (6).On the differential diagnosis, it is very important to distinguish epidermal cysts from trichilemmal cysts, steatocystoma multiplex, cystic degeneration, vascular and neurogenic tumors, hemorrhagic lymphangioma, cystic teratoma, ganglion cysts or tumors (2, 3, 4, 5). MRI is an excellent method to rule out neoplasms and true soft-tissue tumors. Usually epidermal cyst on MRI appears as well-circumscribed mass with isointense on T1-weighted images and hyperintense on T2-weighted images without fluid-fluid levels. Peripherally, both T1 and T2 weighted images have hypointense rims.

Surgery with local excision followed by primary closure is the mainstay of treatment. However, the extent of excision is dictated by the adherence of tumor capsule to the surrounding anatomical structures.

In conclusion, complicated epidermal cysts might lead to inflammation, infection, genital discomfort and even rupture. MRI is a very helpful method in the differential diagnosis of giant masses, but histopathology is still considered as the definitive one. Local excision is treatment of these lesions.

REFERENCES

1) *Kim HK, Kim SM, Lee SH, Racadio JM, Shin MJ. Subcutaneous epidermal inclusion cysts: ultrasound (US) and MR imaging findings. Skeletal Radiol 2011, 40: 1415-9.*
2) *Pandya KA, Radke F. Benign skin lesions: lipomas, epidermal inclusion cysts, muscle and nerve biopsies. Surg Clin North Am 2009, 89: 677-87.*
3) *Golshan Momeni M, Anavim A, Lin F, Tehranzadeh J. Giant epidermal inclusion cyst of buttock. Skeletal Radiol 2006, 35: 864-6.*
4) *Takemura N, Fujii N, Shibata C, Kawano A, Fujimoto N, Uenishi T, Tanaka T. Fluid-fluid level in a giant epidermal cyst of the buttock. J Dermatol 2007, 34: 193-7.*
5) *Luba MC, Bangs SA, Mohler AM, Stulberg DL. Common benign skin tumors. Am Fam Physician 2003 Feb 15, 67: 729-38.*
6) *Polychronidis A, Perente S, Botaitis S, Sivridis E, Simopoulos C. A Giant Multilocular Epidermoid Cyst of the left Buttock. Dermatol Surg 2005 31: 1323-4.*