

CASE REPORT

Localized lipomatosis of the perineum in a 58-year-old male patient – case report

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Abstract

Lipomatosis of the perineum is an extremely rare condition. We report a localized hypertrophy of adipose tissue of the perineum in a 58-year-old man. The cause of enlargement could not be revealed. Nonetheless, preoperative workup and exclusion of possible malign tumors is essential.

Keywords:

plastic surgery, lipomatosis, soft tissue

History

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Introduction

Different disturbances of body fat distribution have been previously described and published [1–3]. Some are associated with a complete or partial loss of adipose tissue such as lipodystrophy in the case of insulin-dependent diabetes or in patients with HIV and anti-retroviral therapy [1]. Besides lipomas and the multiple symmetric lipomatosis (Madelung's disease) [2], lipomatosis of different sites can be found [3–6]. Plastic surgeons often see patients with disturbances of body fat distribution. A preoperative workup is essential for the right differential diagnosis and the right therapy.

Here we present a rare case of lipomatosis of the perineum as an example of an unusual localization of a lipoma.

Case report

We present a 58-year-old man who was suffering from a painful localized lipomatosis of the perineum, close to the scrotum. The patient reported slow growth over 4–5 years. During this period, the patient's weight was constant (patient's weight 90 kg, height 180 cm, body mass index 27.8).

The patient complained of pain in the perineum, especially during bicycle riding.

The only known comorbidity was Parkinson's disease, which was treated with a dopamine agonist, monoamine oxidase inhibitor and a selective norepinephrine reuptake

inhibitor. The patient was a non-smoker, non-alcoholic, with family history being unremarkable.

His physical examination showed normal physical findings, except for a soft tumor of 5 × 5 × 4 cm in the perineum, impressing like labia majora, located dorsal to the scrotum (Figure 1). Clinical examination and ultrasound revealed no inguinal or intra-abdominal lymphadenopathy. Routine biochemical investigation, including hematology, liver function tests and renal function tests revealed no abnormalities. His lipid profile did not show any hyperlipidemia. Computed tomography (CT) showed tumor formation without a capsular structure or definite border. It suggested that the tumor was benign and consists of fat (Figure 2).

Surgical removal was performed in lithotomy position. Through a 5 cm cut in the perineum, 220 g of macroscopically inconspicuous adipose tissue was removed in small portions (Figure 3). Excessive skin was resected in an H-shape. Wound closure was performed with deep dermal interrupted Vicryl (3/0) sutures and dermal running lock stitch Ethilon (4/0) sutures. Dermal sutures were removed 14 days postoperatively. During this period, no sports were allowed.

The histological examination of the tumor revealed fatty tissue with univacuolar adipocytes and formations of fibrous septa and smooth muscles, consistent with an unspecific benign lipomatosis (Figure 4).

Excision of the tumor led to symptom relief. Three months postoperatively, the patient did not have any

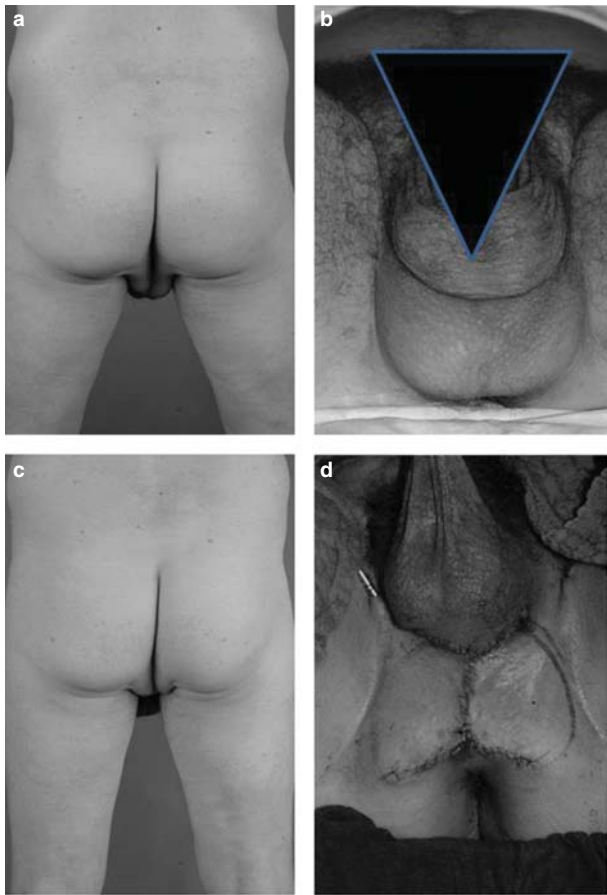


Figure 1. Fatty tissue enlargement in the perineum of a 58-year-old male patient. a) Preoperative situs, dorsal view. b) Preoperative situs, ventral view. c) Postoperative (8 weeks) situs, dorsal view. d) Postoperative situs (end of operation), ventral view.



Figure 2. Preoperative computed tomography scan: lipid formation without any capsular structure in the perineum.



Figure 3. Intraoperative situs. a) Skin incision. b) Intraoperative view to the fatty soft tissue enlargement. c) Excision of 220 gr. of crumbly fibro-lipomatous tissue.

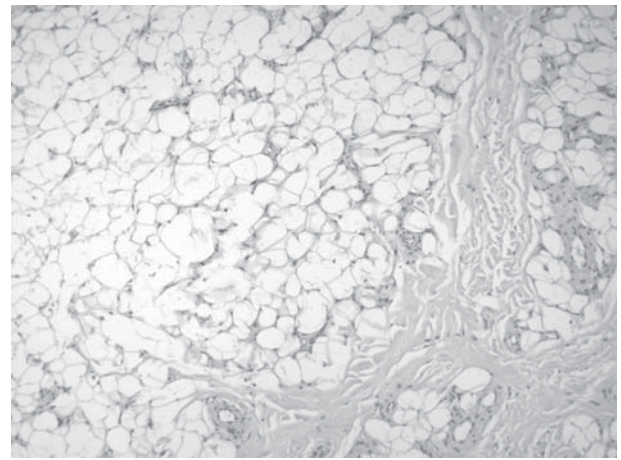


Figure 4. Histological figure (hematoxylin and eosin staining) with univacuolar adipocytes, fibers of smooth muscle cells and fibrous fibers.

complaints. No tumor recurrence was observed in the following 2 years (Figure1).

Discussion

In clinics, plastic surgeons are often confronted with lipomatosis or soft tissue tumors at different sites [3-6]. Diagnosis can often be easily made by physical examination or ultrasound (e.g., subcutaneous lipoma) and in some cases liposuction leads to satisfying results [7,8]. It is important to differentiate between cases with symmetric lipomatosis or lipomas and patients with soft tissue enlargements that require more attention. In our case, a patient presented with a painful, slowly growing soft tumor in the perineum. Physical examination gave the impression of a lipomatous tumor. Lipomatous tumors or lipomatosis of the perineum are very rare and have not been broadly published. Gao *et al.* [4] presented a case of lipomatosis of the penis and the perineum in a 6-year-old boy. Pelvic lipomatosis is an uncommon benign disease of unknown etiology that was first described by Engels in 1959 [5].

Magnetic resonance imaging (MRI) can help to accumulate information on tumor size, dimension, surrounding structures and sometimes suggested dignity, which is necessary in the workup of soft tissue tumors. Unfortunately, our patient refused the MRI scan due to claustrophobia. We usually perform MRI scan in all patients with soft tissue tumors larger than 2 cm and with tumors located in deeper tissue layers (e.g., intramuscular localization).

The CT scan revealed a lipoma formation without any capsular structure in the perineum.

There is a long list of differential diagnoses of atypical lipomatous tumors, which ranges from lipoblastoma, spindle cell lipoma, pleomorphic liposarcoma to benign lipomatosis of unknown origin. These differential diagnoses influence the surgical treatment.

Inconspicuous fatty tissue can often be removed by liposuction [7]. However, before starting the treatment a tissue specimen has to be taken in cases of unclear dignity. The exact operative procedure depends on the dignity, tumor size, its dimension and surrounding structures. In our case, CT of

the tumor revealed that it was located subcutaneously, without breaking into deeper layers. This localization made resection easy and we were able to offer a 'one-step' procedure, which was demanded by the patient. Surgical excision provided symptom relief and potentially prevented tumor expansion.

The histological examination of the tumor confirmed that it was composed of adipose tissue. The cause of this fatty tissue enlargement in the perineum could not be found. Patient's weight during the time of tumor growth was constant and no medical drugs (like steroids, where a gain of fat is described) were taken [9]. Furthermore, hormone and lipid levels of the patient were normal.

In literature, a few case reports of soft tissue tumor development after previous traumatic injury have been reported [10]. However, in our case, history did not reveal any injuries. We also discussed regular bicycle riding as a periodical trauma. We found no data that correlated bicycle riding, not even in professional sports, and lipomatous tissue enlargement in the perineum. We can state that no topical or irritative reasons could be found in this case.

In summary, spontaneous fatty tissue enlargement in the perineum is a rare condition. We present the case of a 58-year-old man with fatty tissue in the perineum of unknown origin. As with many other published cases, no cause for this enlargement could be revealed. However, before surgical treatment, one must be aware of possible differential diagnoses and rare etiological factors. In our case, surgical excision of the tumor could be easily performed and led to symptom relief.

Declaration of interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

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