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CLINICAL CASE

Angiomyofibroblastoma-like tumor of the male genital tract mimicking a testicular tumor

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KEYWORDS
Angiomyofibroblastoma-like tumor;
Inguinal hernia;
Mesenchymal tumor;
Testicular neoplasms

Abstract
An angiomyofibroblastoma-like tumor is a rare mesenchymal tumor that arises in the scrotum, inguinal region or perineum in men. It is usually described as superficial, originating in subcutaneous tissues. In the present case we found an angiomyofibroblastoma-like tumor with a different clinical presentation. We describe a benign tumor that mimicked a testicular tumor clinically and in imaging exams. This tumor was herniated to the scrotum through an indirect inguinal hernia that had arisen from the omentum and the mesenteric/splanchnic circulation; these were the only structures it was linked to. Surgical excision is the recommended treatment and cure is obtained in most cases.

PALAVRAS-CHAVE
Tumor angiomiofibroblastoma like;
hérnia inguinal;
tumor mesenquimatoso;
tumor do testículo

Angiomiofibroblastoma *like* do aparelho genital masculino a mimetizar um tumor do testículo

Resumo
Um angiomiofibroblastoma é um tumor mesenquimatoso raro que, nos homens, se desenvolve ao nível do escroto, da região inguinal ou do períneo. Habitualmente este tumor é superficial e origina-se no tecido celular subcutâneo. No presente caso encontrámos um angiomiofibroblastoma com uma apresentação clinica diferente. Descrevemos um tumor benigno que, do ponto de vista clinico e imagiológico, mimetizava um tumor do testículo. Este tumor encontrava-se ligado aos vasos da circulação esplâncnica/mesentérica e ao epiploon e fazia herniação para o escroto através de uma volumosa hérnia inguinal. A ressecção cirúrgica é o tratamento recomendado para estes tumores, com a cura a ser obtida na maioria dos casos.

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Introduction

Angiomyofibroblastoma-like tumor is a rare mesenchymal tumor that occurs in men. Its name is based on similarities with the female angiomyofibroblastoma. The histogenesis of this tumor is the subject of speculation, with some evidence suggesting an origin from a perivascular mesenchymal cell. We describe an angiomyofibroblastoma-like tumor with a different clinical presentation and probably a different origin compared to cases described previously.

Case report

A 37-year-old man with no relevant medical history presented with an increased volume of the right testicle with a two-year evolution.

Clinically, in the right scrotum we palpated a tender, homogeneous and nonpainful mass of approximately 10 cm; the epididymis and testicle could not be isolated from this mass. No pathological inguinal nodes were detected.

Ultrasonography detected a pronounced increase in the volume of the right testicle, with a 5.6 cm cephalocaudal diameter, hipoecoic and diffusely heterogeneous; these aspects suggested an expansive lesion.

A Computed Tomography Scan of the pelvis and abdomen revealed a right testicle partially visualized with increased dimensions embedded in the context of a proliferative mass; the fat around the spermatic cord was prominent. Peri-testicular vascular ingurgitation was also present that seemed to have a connection with the splanchnic/mesenteric circulation.

Tumor markers for testicular cancer, β-HCG and α-FP, were within the normal range.

We assumed the patient had a testicular tumor and he was proposed to radical orchiectomy.

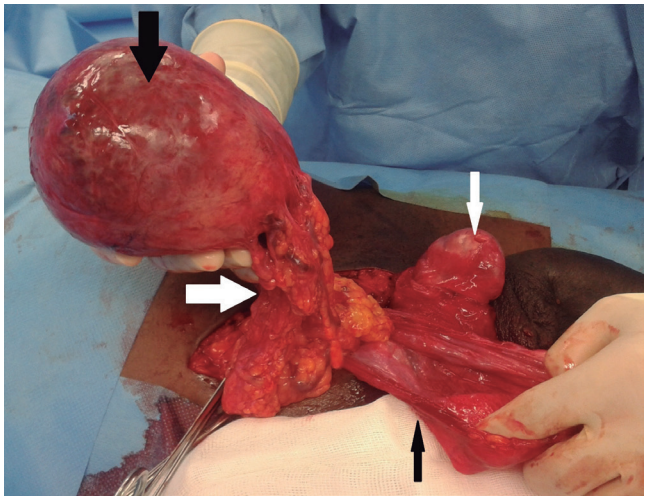

Figure 1 Appearance of the structures inside the right scrotum of the patient during the surgery; inside the right scrotum the patient had a healthy right testicle (thin white arrow) and spermatic cord together with an indirect inguinal hernia which sac (thin black arrow) was surrounding the big mass (thick black arrow); this mass was linked to the epiploon and splanchnic/mesenteric circulation (thick white arrow).

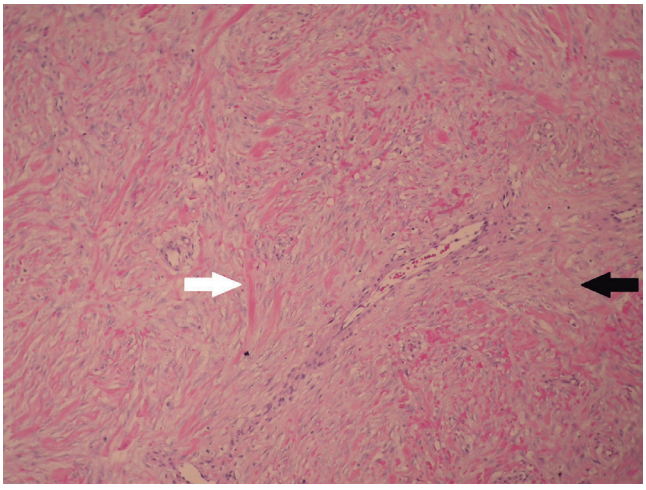

Figure 2 Photomicrograph of the tumor reveals a mesenchymal, spindled hypocellular proliferation in a stromal matrix, containing small to medium size blood vessels, composed by thick, eosinophilic collagen fibers (white arrow) with an admixture of more thin and light collagen fibers (black arrow) (hematoxylin-eosin, ×100).

During the surgery, contrary to expectations, it was ascertained that inside the scrotum the patient had a healthy right testicle and spermatic cord together with an indirect inguinal hernia whose sac surrounded the large mass (Fig. 1).

The mass inside the herniary sac was completely separated from it and only fixed to a small portion of the omentum and vessels; this portion was ligated, the mass was completely removed and the indirect inguinal hernia was corrected.

This tumor measured 12 × 9.5 × 7.5 cm and had a firm to soft consistency. Other macroscopic features included a solid cut surface, grey, with a brown/hemorrhagic stipple, and a central cystic hemorrhagic area of about 5 cm.

Microscopically, the tumor was a mesenchymal, spindled hypocellular proliferation, with cytonuclear atypia sparse or absent. These cells were in a stromal matrix containing small to medium sized blood vessels, composed of thick, eosinophilic collagen fibers with an admixture of thinner and lighter collagen fibers. Necrosis or mitotic figures were absent (Fig. 2). Immunohistochemical analysis showed that the neoplastic cells reacted positively with vimentin (Fig. 3) and focally with desmin. Immunoreactivity was negative for: smooth muscle actin, CD117, B-catenin, ALK, CKAE-1-AE3, CA5.2, Calretin, WT1, trombomodulin, S100, CD68, CD99, bcl2 and IgG4.

The microscopic features and immunohistochemical profile were very suggestive that this mass could be an angiomyofibroblastoma-like tumor of the male genital tract.

After two years of follow-up, there was no evidence of recurrence.

Discussion

Fletcher et al.[1] in 1992 described a new type of mesenchymal tumor named angiomyofibroblastoma that arose in