A Case Study Evaluating the Diagnosis and Treatment of a Rare Mesenchymal Tumor

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The objective of this study is to report a benign mesenchymal neoplasm, cellular angiofibroma. We describe a 34-year-old male with a 4-month history of a painless right inguinal mass. CT scan of the abdomen and pelvis showed a 6.6 cm, oval-shaped mass without any distinguishing radiographical features. Surgical excision of the mass was performed. Tissue was extracted for immunohistochemical analysis, which stained positive for CD34 and Desmin, confirming cellular angiofibroma of the spermatic cord. Thus, this report highlights the importance of a challenging diagnostic case for providers due to the narrow range of imaging modalities and therefore limited treatment options. UROLOGY 131: e1−e2, 2019. © 2019 Elsevier Inc.

CASE DESCRIPTION

A 34-year-old Indian man presented with a painless right groin mass for the past 4 months. Clinical examination showed a 6 cm, freely mobile mass that could be guided into the scrotum. Normal appearing testicles were present. Laboratory testing was unremarkable. CT scan revealed a 6.6 cm oval-shaped soft tissue mass in the right inguinal region (Fig. 1). Ultrasound revealed intimate association between mass and spermatic cord. Patient underwent surgical excision of the mass. The mass under subcutaneous fat was easily separated from the spermatic cord and had no vascular attachments to the cord or testicles. Immunohistochemistry demonstrated positive staining for CD34 and Desmin (Fig. 2). Final pathology was consistent with cellular angiofibroma (CAF) of the spermatic cord.

Cellular angiofibroma represents a rare benign mesenchymal neoplasm that typically occurs in the inguinoscrotal area of men and the vulvo-vaginal region of women.1 Histologically and radiographically similar to angiomatoid fibrous hamartomas, solitary fibrous tumors, and angiomyxomas, their clinical features often mimic sliding inguinal hernias.2 The differential diagnosis for these tumors includes lesions that are more malignant in nature. Because of the risk of malignant seeding, surgical excision is preferred.3 Thus, this case highlights a diagnostic challenge for providers and the lack of diagnostic modalities, limiting treatment options.

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Figure 1. Right-sided inguinoscrotal mass as seen on contrast enhanced CT scan of the abdomen and pelvis.

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Figure 2. Visualization and immunohistochemical analysis of tissue: (A). Under low magnification, the lesion is moderately cellular with spindle cells and small to medium-sized vessels (H&E, original magnification ×40). (B). Under higher magnification, the spindle cells are bland without atypia, surrounding hyalinized vessels (H&E, original magnification ×200). By immunohistochemistry, the lesion is strongly positive for (C). CD34 (original magnification ×100) and (D). Desmin (original magnification ×100).

References