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IMAGE | PATHOLOGY

Giant Solitary Fibrous Tumor of the Buttock

Vincenzo Vigorita, MD[1], Marco Bertucci Zoccali, MD[2], Stefano Rausei, MD[3], Matteo Lavazza, MD[3], Carlos Rodríguez Pereira, MD[4], Nieves Cáceres Alvarado, MD[1], and Enrique Casal Núñez, MD[1]

[1]*Department of General and Digestive Surgery, University of Vigo, Meixoeiro/Xeral Hospital, Vigo, Spain*
[2]*Department of Surgery, New York Presbyterian Hospital–Weill Cornell Medical College, New York, NY*
[3]*Department of Surgery, University of Insubria, Varese, Italy*
[4]*Unit of Pathology, University of Vigo, Meixoeiro/Xeral Hospital, Vigo, Spain*

Case Report

A 63-year-old woman presented with a complaint of left buttock mass that had rapidly increased in size after a recent trauma. The patient was otherwise asymptomatic, denying any pain or constitutional symptoms. On physical exam, a well-defined, firm, freely mobile 20-cm mass with intact, non-erythematous overlying skin was palpated in the medial-lower quadrant of the left buttock, contiguous to the left perineal region. On digital rectal examination, the mass was palpable on left posterior aspect of the rectal wall, with smooth and intact overlying mucosa.

Pelvic magnetic resonance imaging (MRI) showed a 16 x 10-cm mass in the left ischiorectal fossa, extending from the left levator ani muscle, which appeared displaced cranially, to the subcutaneous fat of the left buttock (Figure 1). A surgical resection of the mass was performed through a longitudinal left gluteal incision, with blunt dissection of the mass from the rectal wall, whose integrity was preserved (Figure 2). The post-operative course was uneventful without impairment of patient's anal sphincter function.

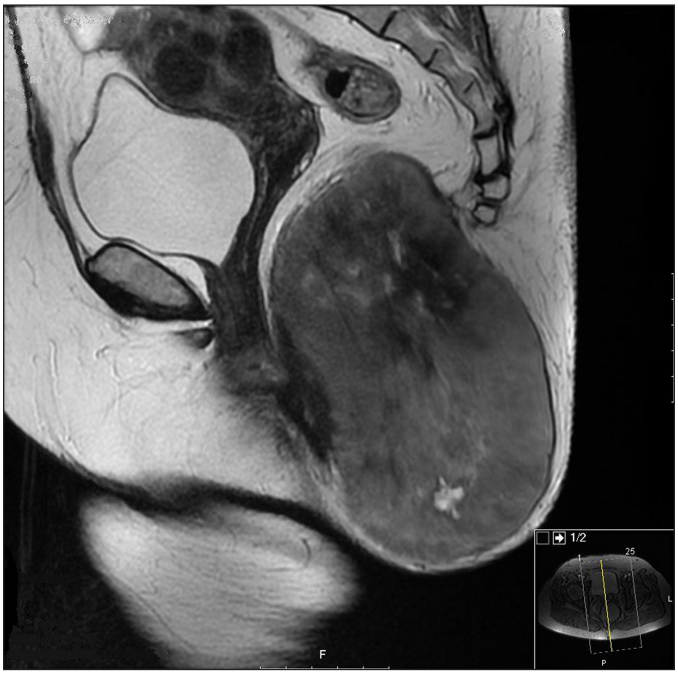

Figure 1. MRI of the pelvis showing a large mass occupying the left ischiorectal fossa.

Pathology examination revealed a 14 x 12 x 7-cm well-encapsulated neoplasm characterized by a proliferation of spindle-shaped and oval cells, demonstrating a variety of growth patterns consistent with solitary fibrous tumor (SFT). The tumor showed intense immunohistochemical positivity for vimentin and CD34 (Figure 3). The expression of vimentin and CD34 differentiates SFT from leiomyosarcoma, fibrosarcoma, carcinosarcoma, phylloides tumor, and hemangiopericytoma. Other makers commonly expressed are Bcl-2 and CD99.[1-3] SFTs are rare neoplasms of the soft tissue, most commonly arising in

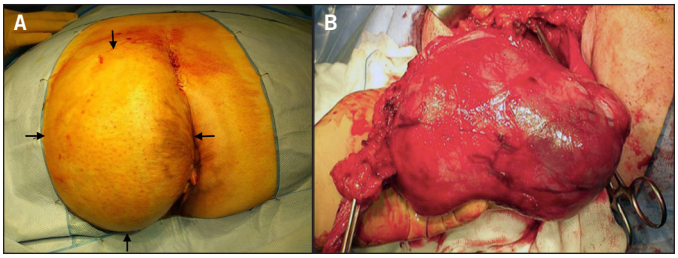

Figure 2. (A) Operating room setup with the patient in the prone jack-knife position. A large mass is evident bulging through the left buttock (arrows) (B) Intraoperative view of the mass almost completely mobilized with intact capsule.

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Correspondence: Vincenzo Vigorita, MD, Meixoeiro s/n, 36200 Vigo, Spain (v.vigorita@gmail.com).

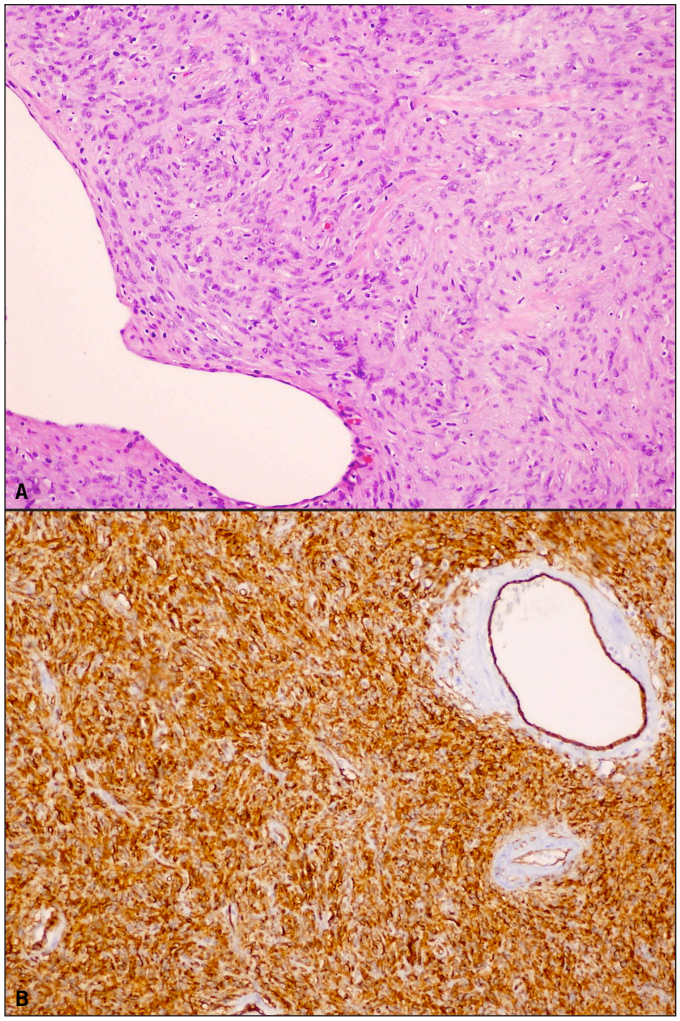

Figure 3. (A) Patternless architecture of the tumor with spindle-shaped cells mixed in hypocellular (right) and hypercellular (left) areas, surrounding branching hemangiopericytoma-like vessels (H-E, x10 magnification) (B) Tumor cells and vessel walls showing intense CD34 immunoreactivity (CD34, x10 magnification).

the pleura, although several case reports have described extrathoracic locations.[2-3] MRI is the imaging modality of choice, accurately identifying these lesions based on peculiar radiological features suggestive of fibrosis, predominantly at the core of the lesion (Figure 1).

Complete surgical resection is the only curative treatment. The role of radiotherapy and chemotherapy is uncertain and further studies are needed. It has been reported that 10–15% of SFTs are malignant; however, histological findings cannot always predict clinical behavior. Size greater than 10 cm and high cellularity with crowded or overlapping nuclei, high mitotic activity, nuclear pleomorphism, and necrosis are considered to be associated with malignant behavior. Careful long-term follow-up is recommended after surgery.[4] Although the clinical experience with this tumor is limited, we elected to follow the patient with annual MRI for at least 10 years.

Disclosures

Author contributions: V. Vigorita, MB Zoccali, and S. Rausei drafted the manuscript. M. Lavazza, CR Pereira, and NC Alvarado acquired the data. EC Núñez critically revised the manuscript for intellectual content. V. Vigorita is the article guarantor.

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