Leiomyosarcoma of scrotum: case report

Tariq Bouhout1,8, Badr Serji1, Ebo Usman Egyir1, Benyounes El Amri2, Imad Bouhout3, Mehdi Soufi2, Mohammed Bouziane2, Tijani El Harroudi1

1Chirurgie B, CHU Mohammed VI, Oujda, Maroc, 2Chirurgie A, CHU Mohammed VI, Oujda, Maroc

8Corresponding author: Tariq Bouhout, Chirurgie B, CHU Mohammed VI, Oujda, Maroc

Key words: Leiomyosarcoma, scrotum, wide excision

Received: 15/09/2016 - Accepted: 17/10/2016 - Published: 20/12/2018

Abstract

Scrotal leiomyosarcoma is rare tumor. It presents as a painless, slow-growing cutaneous lesion. It’s often mistaken for a benign condition. It is best treated by wide local excision. A case of scrotum leiomyosarcoma is presented in a 63 year old patient who was treated for the first time as having a benign lesion.

Pan African Medical Journal. 2018;31:238. doi:10.11604/pamj.2018.31.238.10741

This article is available online at: http://www.panafrican-med-journal.com/content/article/31/238/full/

© Tariq Bouhout et al. The Pan African Medical Journal - ISSN 1937-8688. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/2.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
Introduction

Leiomyosarcoma of the scrotum is a rare tumor. More than 95% of scrotal sarcomas arise from the spermatic cord, epididymis, or testes, while their location in the scrotal skin is exceptional [1]. It presents as a painless, slow-growing cutaneous lesion. It’s often mistaken for a benign condition with the true diagnosis revealed only on pathologic examination. We report a case of scrotal léiomyosarcome in a 63 year-old man for its rarity.

Patient and observation

A 63-year-old man with a 3 year history of hypertension, presented with a firm mass in the right hemiscrotum. This lesion had appeared four years previously. On local examination, à 4 centimeters mass was noted on the right scrotum, the left testis, both epididymis and the spermatic cords were normal to palpation, while the inguinal nodes were not palpable.

Mass excision was performed by another surgeon. Pathologic examination revealed a léiomyosarcome of the scrotum, the nodule was well defined and consisted of a proliferation of cells with cigar-shaped nuclei and eosinophilic cytoplasm, the mitotic count was high. The cells stained positive for actin and H-Caldesmon on immunohistochemistry and were negative for desmin. Resected margins were positive.

The patient was referred to our department; he was then evaluated for distant metastatic spread with a total body CT scan that showed no distant metastasis. Wide excision around the scar of the previous excision was performed. Definitive histology showed the absence of tumor on the latter specimen .No recurrence has been recognized 40 months after.

Discussion

Soft tissue sarcomas are 1% of all malignancies [2]. Leiomyosarcomas constitutes 10 to 20% of soft tissue sarcomas; they arise most often from uterus, gastrointestinal tract and retroperitoneal region [1]. Johnson H Jr in 1987 reported the first known case of leiomyosarcoma of the Scrotum [2]. Only 40 cases have been reported in the literature worldwide till now [3]. Léiomyosarcomes are divided into two types depending on the location, cutaneous léiomyosarcomes arise from the arrectores pilar muscle of the hair follicle or dartos muscle of the genital skin. Subcutaneous léiomyosarcomes arise from the muscle lining of arterioles and veins in the subcutaneous tissue [4]. They present between the fourth and eight decades of life as a painless, slow-growing skin lesion [5]. The duration of symptoms varies from several months to few years. Physical examination exhibits firm, rubbery masses having similar features of a cystic lesion.

This case evinces how a leiomyosarcoma of the scrotum can simulated a benign lesion. He had a lesion that was treated for the first time as being a benign lesion. Resected margins were positive, and that may influence the prognosis of the patient.

Confirmation of the diagnosis of léiomyosarcome is based up on histological examination of biopsy specimen, which reveals spindle cells with cigar-shaped nuclei arranged in interweaving fascicles [1, 6] the diagnosis of malignancy is based on the mitotic rate of 2-10 mitoses/HPF [7], the presence of nuclear pleomorphism, and vascular invasion . On immunohistochemistry, leiomyosarcomas are positive for actine and desmine [1, 3].

It is best treated by wide excision [8], inguinal lymphadenectomy should be performed in those patients with a high degree of suspicion is present for lymph node metastasis. The adjuvant therapy is limited, local control is improved with preoperative or postoperative radiotherapy. The role of chemotherapy is used at several major centers for high-risk patients [3].

The prognosis is generally good in the absence of local recurrence. A positive margin at the first excision increases the risk of local recurrence [4]. Long-term follow-up is needed, because late recurrences and distant metastasis can appear years after the initial excision [3].

Conclusion

Scrotal leiomyosarcoma is a rare clinical entity; it often resembles a cyst. The recommended treatment of localized leiomyosarcoma of the scrotum is wide excision. Long term follow up is essential,
because of the risk of delayed local recurrence and distant metastasis.

**Competing interests**

The authors declare no competing interests.

**Authors’ contributions**

All authors contributed equally in the literature search, interpretation of the articles and review of the manuscript. All the authors have read and approved the final version of the manuscript.

**References**

1. Talikoti MA, Deo SS, Shuka NK, Kallianpur AA, Gupta M. A rare case of giant leiomyosarcoma in a filarial scrotum: a case report. World journal of Surgical Oncology. 2011;9:20. PubMed | Google Scholar

2. Kaushal Vivek, Singh Harmee, Gill Meenu. Recurrent Leiomyosarcoma of the Scrotum. 2009. Google Scholar

3. Ekmekci S et al. Scrotal leiomyosarcoma. Tepecik egit vearast hast. Dergisi 2015;25(1):55-57. PubMed | Google Scholar

4. John T, Portenier D, Auster B et al. Leiomyosarcoma of scrotum-case report and review of literature. Urology. 2006 Feb;67(2):42e13-42e15. PubMed | Google Scholar

5. Persichetti Paolo, DI Lella Filippo, Marangi Giovanni F et al. Leiomyosarcoma of the scrotum arising from the dartos muscle: a rare clinicopathological entity. InVivo. 2004;18(5):553-554. PubMed | Google Scholar

6. Johnson et al. Leiomyosarcoma of the scrotum a case report with electron microscopy. Cancer. 1978 May;41(5):1830-5. PubMed | Google Scholar

7. Rajkomar Kheman, Mundy Ian. Leiomyosarcoma of the scrotum-a rare tumour. The New Zealand Medical Journal (Online). 2007;120:1266. PubMed | Google Scholar

8. Patel B,Vora A, Muruve N. Case of subcutaneous leiomyosarcoma of the scrotum presenting as a sebaceous cyst in a 71-year-old man: a case report and review of the literature. Urology Case Report. 2014 Nov 6;2(6):181-2. PubMed | Google Scholar