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High-Grade Pleomorphic Sarcoma of the Scrotum: A Rare Clinical Entity

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ABSTRACT

A majority of the malignant extratesticular tumors arise from the spermatic cord. Sarcomas are the most common malignant tumor, with rhabdomyosarcoma being common in children while liposarcoma is common in adults. However, pleomorphic sarcoma, leiomyosarcoma, mesothelioma, and lymphoma also occur in the scrotum. High-grade pleomorphic sarcoma is a rarely reported tumor of the scrotum.

CASE REPORT

A 50-year-old male presented with a left scrotal wall mass. Initially, the mass was small and grew larger within 2 months. On examination, a hard and nodular lump, measuring 3 cm by 3 cm, was found on the left scrotal wall. It was fixed to the lower pole of the left testis. He had no significant past medical history. The general physical examination was normal. Inguinal lymph nodes were not palpable on either side. Laboratory studies revealed normal hematological and biochemical profiles. His alpha-fetoprotein was 4.1 ng/ml and his beta HCG value was 1.6 IU/L. His chest X-ray was normal. A computed tomography (CT) scan showed that the retroperitoneal lymph nodes were not enlarged. We performed an excision of the tumor, with a 2 cm margin, and a left orchidectomy. The postoperative period was uneventful. The histology showed high-grade pleomorphic sarcoma. There were no systemic and local recurrences at a 6-month follow-up. No adjuvant therapy was given.

DISCUSSION

Besides the testis, the scrotum contains the epididymis, the spermatic cord, and fascia that accompany the testis during the embryologic journey from the pelvis into the scrotum. The majority of tumors arising from these extratesticular structures are benign and arise from the spermatic cord [1]. The most common malignant tumors are sarcoma, but pleomorphic sarcoma, leiomyosarcoma, mesothelioma, and lymphoma also occur in the scrotum [2]. Pleomorphic, malignant, fibrous histiocytoma—also known as undifferentiated high-grade pleomorphic sarcoma, according to the latest World Health Organization classification—is a common soft tissue sarcoma in adults. While scrotal/paratesticular malignant fibrous histiocytoma is extremely rare [3], Padula et al. reported an

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adult paratesticular, malignant, fibrous histiocytoma treated with surgery, systemic chemotherapy, and postoperative adjuvant radiotherapy [4].

In a review from Princess Margaret Hospital, 21 patients with adult paratesticular sarcoma were analyzed. Fourteen patients presented with the disease. Thirteen of 14 patients underwent initial radical orchidectomy. Six of these 14 patients underwent either adjuvant surgery or adjuvant radiotherapy to the groin, or to the groin and scrotum, and none of these 6 had a local relapse. Radiotherapy doses ranged from 2400 cGy to 6000 cGy. Of the 7 patients referred with recurrent local disease, only 1 could be salvaged [5].

Patients with paratesticular sarcoma of all grades are at a high risk for local failure, after limited local surgery. This requires aggressive treatment. Wide repeat excision or local excision are recommended for those initially treated with orchiectomy. The role of local adjuvant radiation therapy after a wide excision could not be determined for these patients. The experience with soft tissue sarcomas arising in other sites indicates that patients with narrow or positive margins after wide excision therapy are at an increased risk for local failure. Postoperative radiation should be considered. Local failures occurred in patients who had initially undergone inadvertent intralesional surgery, and they should be considered for radiation, followed by wide repeat excision. A systemic relapse of high-grade disease remains a significant problem, and improvements in survival will require effective systemic adjuvant therapy [6].

Figure 1. There was a solid mass arising from the left scrotal wall.
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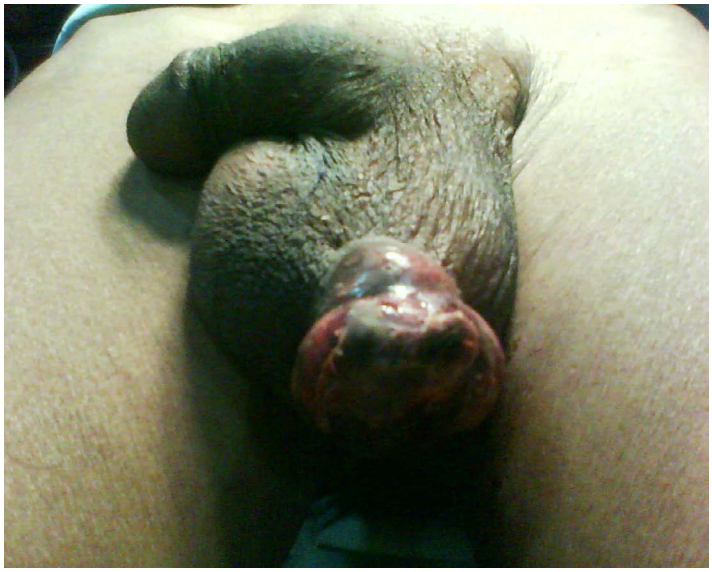
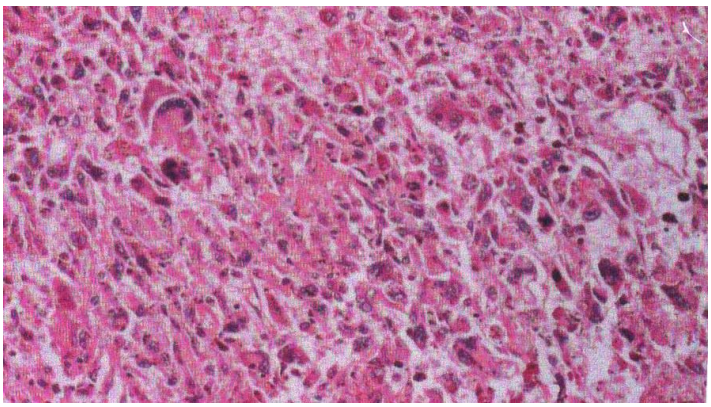


Figure 2. Microscopy of biopsy sample revealed high-grade pleomorphic sarcoma.
http://dx.doi.org/10.3834/uij.1944-5784.2012.04.05f2



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REFERENCES

1. Woodward PJ, Schwab CM, Sesterhenn IA. Extratesticular scrotal mass: Radio-pathological correlation. *Radiographics*. 2003;23(1):215-240. PubMed ; CrossRef

2. Maximilian B, Joachim T, Sebastian M. Liposarcoma of spermatic cord: Report of two cases and review of the literature. *Internet J Urol*. 2005;3:1.

3. Guo J, Zhou S, Rao NP, Pez GH. Pleomorphic malignant fibrous histiocytoma/undifferentiated high grade pleomorphic sarcoma of scrotum in a patient presenting as Fournier gangrene: a case report. *Appl Immunohistochem Mol Morphol*. 2010;18(5):473-478. PubMed

4. Padula GD, Schmitz M. Adult paratesticular malignant fibrous histiocyoma treated with surgery, systemic chemotherapy and postoperative adjuvant radiotherapy. *J Cancer Res Ther*. 2006;2(4):201-202. PubMed ; CrossRef

5. Catton CN, Cummings BJ, Fornasier V, O`Sullivan B, Quirt I, Warr D. Adult paratesticular sarcoma: A review of 21 cases. *J Urol*. 1991;146(2):342-345. PubMed

6. Catton C, Jewett M, O'Sullivan B, Kandel R. Paratesticular sarcoma: Failure patterns after definitive local therapy. *J Urol*. 1999;161(6):1844-1847. PubMed ; CrossRef