Bilateral Paratesticular Liposarcoma - A Rare Case Report

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ABSTRACT

Paratesticular liposarcomas are rare tumors and are often reported as isolated cases. Patients usually present with a painless scrotal or inguinal mass, mimicking inguinal hernia. They refer to liposarcomas arising from the spermatic cord, testicular tunics, and epididymis. We report a case of bilateral scrotal swelling which was misdiagnosed as inguinal hernia. Intraoperative diagnosis of testicular tumor was made. High inguinal orchiectomy was done. Histopathological examination revealed it to be liposarcoma of the cord. To our knowledge, there is no reported case of bilateral paratesticular liposarcoma in English literature, hence we report this case.

Key words: Epididymis, lipoma, testis

INTRODUCTION

Liposarcomas are soft tissue sarcomas that originate from adipose tissue. Paratesticular tumors are infrequent tumors that have a high incidence of malignancy; they are either soft-tissue tumors or mesothelial neoplasms. Paratesticular liposarcomas include all liposarcomas arising in the structures around the testis, including the lower end of the cord.[1] It is felt to arise from the extra peritoneal fat that becomes continuous distally with the fatty tissue of the cord.[2] They commonly present as painless, slowly growing masses that are usually diagnosed as being a lipoma or inguinal hernia. However, complete surgical resection offers the best chance of cure for these patients, and the established method for orchiectomy for testes/cord cancer is through an inguinal incision. Radiotherapy or chemotherapy is added for advanced disease or recurrences.

CASE REPORT

A 65-year-old male patient presented with scrotal swelling of 2-year duration in both right and left hemiscrotum, which was gradually progressive in size and non-reducible. On examination, swelling was soft in consistency, testis was palpable posteriorly, and could not get above the swelling. Diagnosis of bilateral inguinal hernia was made and patient was planned for surgery. Intraoperative, a firm, well-defined tumor, about 20 × 14 × 5 cms on the left and 16 × 14 × 4 cms on the right side were found at the proximal spermatic cord [Figure 1]; no hernia sac was noted at the inguinal canal. Bilateral high inguinal orchiectomy was performed. The gross appearance of the specimen revealed a large, soft, well-circumscribed, multilobulated, fat-containing mass adhering to the spermatic cord and testis. The cut surface of the tumor [Figure 2] showed yellowish and myxoid areas, but without hemorrhage or necrosis. Histopathological examination [Figures 3 and 4] showed sheets and nests of mature adipocytes, scattered atypical cells with hyper chromatic nuclei, and multivacuolated lipoblasts in between on a fibrous and myxoid background. Sections from the testes showed no significant pathology. The patient was counseled on plans for further chemotherapy and radiotherapy. He, however, refused further treatment because he did not have enough money to continue treatment. He has since been lost to follow-up. Informed consent has been taken from the patient regarding the publication of the case report.

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DISCUSSION

Dreyfuss and Lubash reported the first documented liposarcoma of the spermatic cord in a 54-year-old male in 1940.[3] Since then, cases have been published as individual case reports or case series. Liposarcomas are soft-tissue malignancies that are commonly found in the lower extremities and retroperitoneum. They are classified in four histology subtypes (well differentiated, myxoid, pleomorphic, and dedifferentiated).[4] Paratesticular tumors have a high incidence of malignancy, which is estimated as 30% in the documented literature, mostly arising from

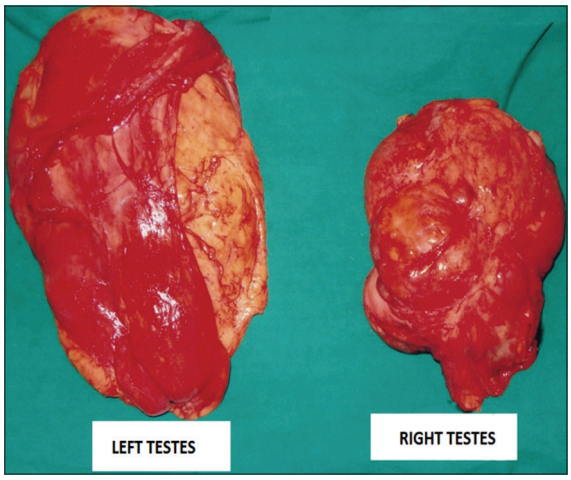

Figure 1: Gross specimen of the tumor mass measuring 20 x 14 x 5 cms on left and 16 x 14 x 4 cms on the right

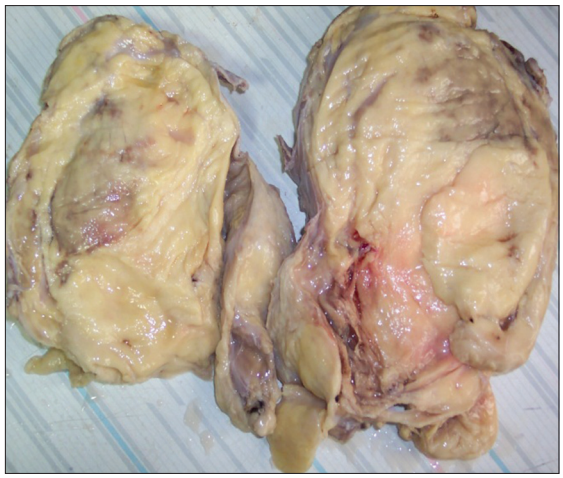

Figure 2: Cut section of the specimen showing yellowish and myxoid areas

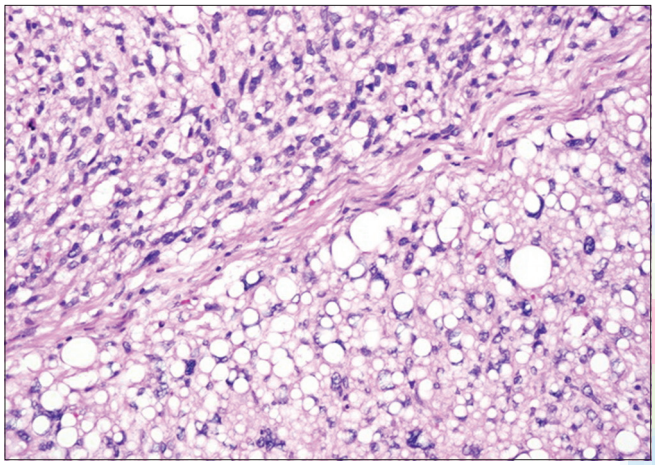

Figure 3: Microscopic examination of the mass revealed an encapsulated proliferation consisting of mature adipocytes accompanied by both spindle-shaped cells and multivacuolated lipoblasts

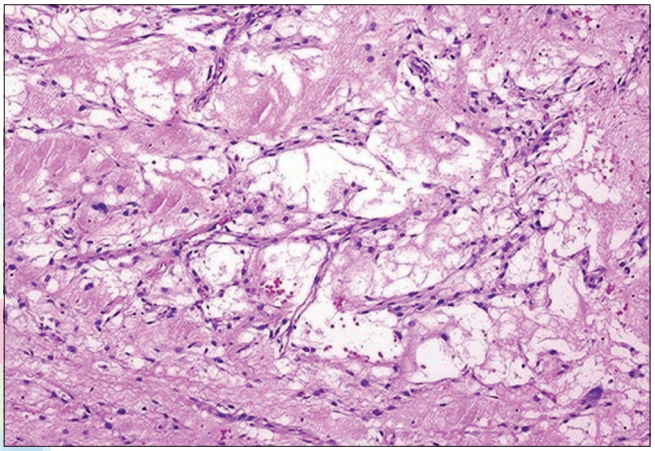

Figure 4: Microscopic photograph showing mature adipocytes, spindle-shaped cells with hyper chromatic nuclei within the stromal tissue and multivacuolated lipoblasts in between on a fibrous and myxoid background

the spermatic cord.[5] Most patients present with painless, slowly growing inguinal or scrotal masses, which are usually diagnosed as inguinal hernias or lipoma before surgical intervention. The majority of spermatic cord sarcomas begin their development just below the external inguinal ring and therefore, grows as a scrotal mass rather than as an inguinal mass.

The homogenous fatty pattern of well-differentiated paratesticular liposarcomas being similar to lipomas or omentum in the hernia sac makes the differential diagnosis of a liposarcoma difficult through ultrasonograhic studies.[6] Hence, even though ultrasonography is the most helpful and commonly used diagnostic tool for differentiating cystic and solid lesions, an abdominal CT scan may be helpful.

A radical orchiectomy remains the mainstay of initial treatment for paratesticular liposarcomas. Since they have the tendency for local recurrence after inadequate resection, complete resection, including high ligation of the spermatic cord, is indicated.[7] An intralesional biopsy or surgery should be avoided to prevent spillage of malignant cells. The role of adjuvant radiotherapy or chemotherapy remains controversial and is only limited in cases of metastatic tumors or in cases following incomplete resection. Radiation therapy may be employed as an adjunct to surgical resection in an attempt to avoid local recurrence.[8] Some authors have even discussed the possibility of the dedifferentiation.[9]

The prognosis of paratesticular liposarcomas depends on the histological cell type, among well- differentiated, dedifferentiated pleomorphic, and myxoid/round cell types. The well-differentiated and myxoid/round cell types have a better prognosis, but they tend to have a high incidence of local recurrence.[10] Malignant spermatic cord tumors are more frequently sarcomas. Radiotherapy is controversial for

local control of liposarcomas. Liposarcomas are the most radiosensitive of all sarcomas and in some cases remission has been achieved with radiotherapy alone.[10]

CONCLUSION

In conclusion, liposarcomas of the spermatic cord represent a rare type of tumors, which are often misdiagnosed preoperatively. Being a rare disease and varied type of presentation, paratesticular liposarcoma should be considered as a possibility during the differential diagnosis of fat containing inguino-scrotal mass. The best chance of cure is by radical orchiectomy.

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