

# Liposarcoma of the Spermatic Cord: A Case Report

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## Abstract

Spermatic cord liposarcoma is a very rare malign soft tissue tumor. Published cases on this tumor have reported that this affection occurs in adults.

We report another case of liposarcoma of the spermatic cord in an 81 year old Moroccan patient who presented with a painless inguino-scrotal mass increasing gradually in size. Histological examination of the excised specimen confirmed a liposarcoma of the spermatic cord.

The objective of this case report is to add another case of this rare malign soft tissue tumor to the English literature and to also review similar cases in the literature.

## Introduction

Spermatic cord liposarcoma is a very rare tumor. About 200 cases have been currently reported in the literature of which most were reported cases in adults, presenting with a painless inguinal or scrotal mass, and were usually mistaken for an inguinal hernia or a hydrocele testis. Its treatment includes radical surgical excision, usually radical inguinal orchidectomy. Published literature on LSC has been limited to case reports with limited clinical information.

## Case presentation

An 81 year old Moroccan patient with a medical history of two surgical excisions for a right scrotal mass presented with a gradual recurrence of two voluminous painless inguino-scrotal masses. Physical exams noted a right inguinal scar, a huge scrotal mass with a buried penis.

An abdominopelvic CT scan objectified the presence of a bulky well limited fat density masses in both inguinal areas and in the scrotum measuring 25 cm in diameter, these masses compressed the penis and testicles. Both testicles had no abnormal testicular density and signs of invasion. The patient underwent an almost complete surgical excision of the mass and a right orchiectomy.

Pathological findings confirmed a well-differentiated liposarcoma (lipomalike).

Adjuvant radiation therapy was given (50 Gy in divided doses for 5 weeks) Review after 12 months showed no local or distant recurrence of this pathology. The patient is still under clinical surveillance.



Figure 1: Pre operative image showing a voluminous inguino-scrotal mass.

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Figure 2: Image of the excised specimen.



Figure 3: Post operative image of the inguino scrotal area.

## Discussion

Liposarcomas are malignant tumors derived embryologically from mesodermal tissues. The first case of liposarcoma of the spermatic cord was reported by Lesauvage in 1845 [1,2], and about 200 cases have so far been reported in the world literature.

Spermatic cord liposarcoma usually appear in old men [3,4], although exceptional cases may involve nodular mass of varying size, located intra-scrotally above the testis in the groin [5]. Thus, the tumor can easily be mistaken for an inguinal hernia, hydrocele testis or tumor of the testis and epididymis [6].

In contrast to testicular masses, ultrasonography provides little information on paratesticular sarcomas, as some are visualized as homogenous and iso-echogenic, others as inhomogeneous and echodensity is quite variable. As liposarcomas are of low density and can be well demarcated, the use of CT scans offers no pathognomic features for the differentiation of benign versus malignant masses are defined [7]. Use of MRI provides good information on the local situation, but an exact evaluation of any mass again cannot be obtained [8-10].

Liposarcomas are histologically classified into 4 subtypes (well-differentiated, dedifferentiated, myxoid and pleomorphic) based on natural history, morphologic features and cytogenetic alterations [7]. The so-called mixed-type refers to a small group of liposarcomas with combined features of 2 or more subtypes.

The treatment of choice of liposarcoma of the spermatic cord is surgical excision with radical inguinal orchidectomy [11,12]. Hemiscrotectomy can be justified in a locally invasive tumor. Retroperitoneal lymph node dissection is not indicated unless there is evidence of tumor invasion.

Radiation therapy is recommended in addition to surgery in high-grade tumors, lymphatic invasion, inadequate margins, or relapses [13-15]. The recommended dosage is 60 Gy over 6 weeks and the radiation field should cover the internal inguinal ring [16,17]. The role of chemotherapy, still being discussed, is reserved for high-grade tumors [18-20].

They usually have good prognosis because of their low levels of malignancy, and relapses tend to be localized. There is a high rate of survival over 5 years. In view of the limited number of published cases, no specific outcome data are available but late recurrences have been reported and a long-term follow-up (of a least 10 years) is recommended [21].

## Conclusion

Spermatic cord liposarcomas are very uncommon tumors, mostly encountered in old men, and are often mistaken for other types of tumors. Careful clinical and radiological examinations are essential in its diagnosis. The treatment of choice is radical orchidectomy and wide excision with high ligation of the spermatic cord. Local relapse is common and may occur several years after primary therapy. Thus, follow-up period has to be sufficiently long.

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