Liposarcoma of the Spermatic cord: A Case Report and Review of the Literature

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Citation

S Allaparthi. *Liposarcoma of the Spermatic cord: A Case Report and Review of the Literature*. The Internet Journal of Urology. 2006 Volume 4 Number 2.

Abstract

Liposarcoma of the spermatic cord is rare. This is a case report of 58 year old man presenting with clinical impression of large right sided inguinal hernia mass. Histology revealed liposarcoma of the seminal cord.

INTRODUCTION

The liposarcoma of the spermatic cord is a rare condition, representing about 7% of paratesticular sarcomas[1].

CASE

A 58 year old patient presented with the clinical impression of a right-sided inguinal hernia. He reported gradual enlargement of this painless scrotal mass during the previous three years. Clinical examination revealed a painless scrotal mass adjacent to the external inguinal ring but separated from the normal testis and epididymis was palpated. Ultrasound examination of this scrotal mass was hyperechogenic and inhomogeneous and separated from the testis and epididymis, which showed no pathological finding.

During surgery a lipomatous mass was found, that could not be separated from the right seminal cord. Frozen section revealed a malignant tumour. Wide excision and radical orchectomy were performed. The weight of the mass was 546 g. This mass had a bunch of grape appearance and consisted of several masses of various sizes surrounding the spermatic cord, and could be separated from the right epididymis and testis. Histological examination revealed well differentiated liposarcoma and lipoma so no further procedures done and patient followed up in 6 months showed no further recurrences or progression of tumor.

Figure 1

Figure 1: Liposarcoma of spermatic cord -testis shown separately

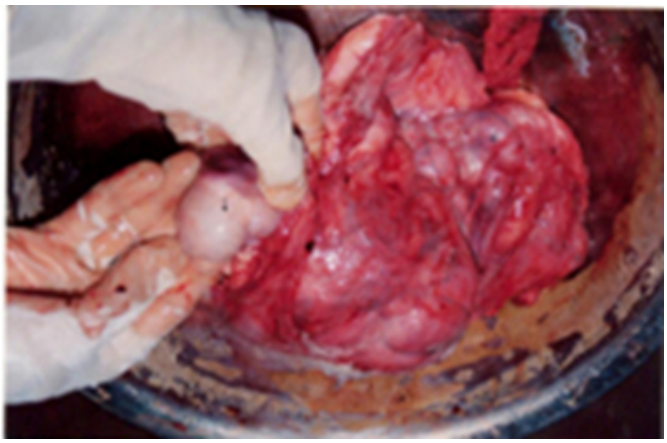


Figure 2

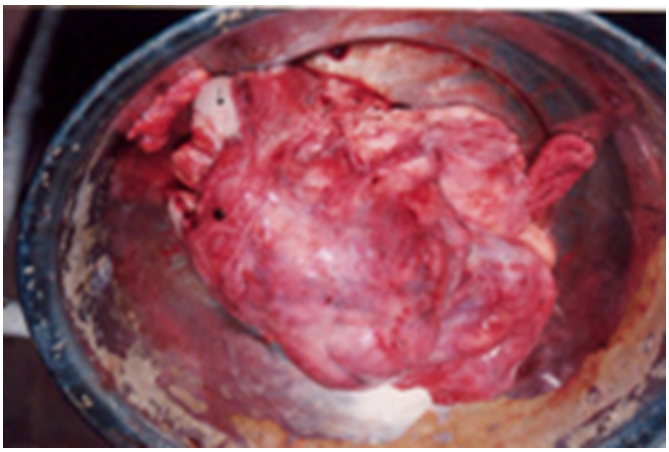


Figure 3

Figure 2: Section of tumor showing characterstic gross features of Liposarcoma

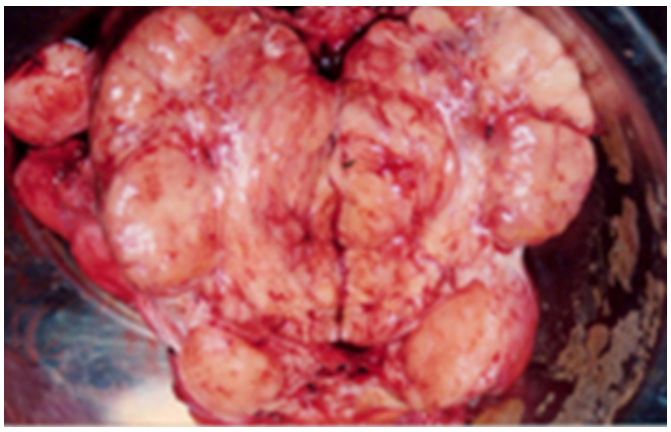
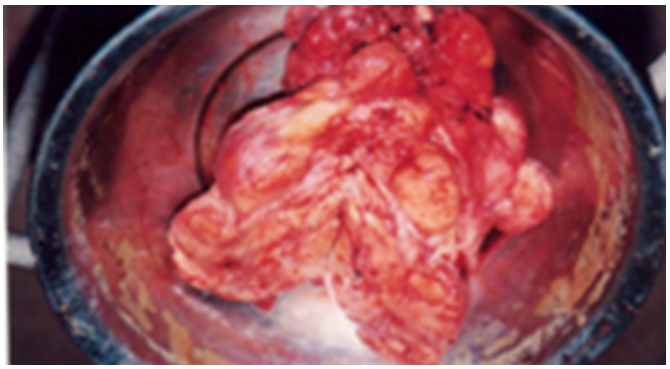


Figure 4



DISCUSSION

Lesauvage in 1845 reported first case of sarcoma of speramtic cord.[2]. Paratesticular malignancies and sarcomas of the seminal cord are in general, liposarcomas of the seminal cord are rare. 80%, of seminal cord tumors are benign and mostly derive from lipomatous tissue. Most paratesticular malignant tumours are sarcomas. Despite the fact, that lipomas are the predominant benign tumours found in the inguinal region, lipomatous tissue plays a minor role in seminal cord malignancies, comprising only approximately 5 % to 7 % of all spermatic cord sarcomas. There are only two series that reported in the literature that hypothesised that a mesenchymal origin rather than malignant transformation of lipomatous cells lead to liposarcomas[3,4]. Thus therapeutical experience is fairly small and some issues remain unsolved.

Patients present with a scrotal mass, that's usually not associated with any inguinal complaints. Increase in size slowly over a period of months or years is the usual presentation. Liposarcoma is a disease of the older age group [5]. No specific diagnostic procedures for evaluating this scrotal mass have been recommended so far. In contrast to testicular masses, ultrasonography provides little information on paratesticular sarcomas, as some are visualized as homogenous and isoechogenic, others as inhomogeneous and echo- density is quite variable. The use of CT- scans is not widely reported, but seems to be promising, as liposarcomas are of low density and can be well demarcated, but no pathognomonic features for the differentiation of benign versus malignant masses are defined [6]. Use of MRI provides good information on the local situation, but an exact evaluation of any masses again cannot be obtained.

The general guidelines of sarcoma therapy, a radical surgical excision of any tumour is necessary. The inguinal radical orchiectomy is the standard approach for sarcomas of the seminal cord in general with wide resection margins [7]. However the anatomical features of the inguinal region sometimes make it difficult o achieve this goal, and negative resection margins are sometimes close to the tumour. Some authors favour a hemiscrotectomy in addition to the inguinal orchiectomy [8]. Local radical excision alone seems to be insufficient for liposarcomas, since local recurrence is a major problem, occurring in up to 50 % of the patients. No sufficient data on the general risk factor for local recurrence is available. However it is established for liposarcomas of the extremities, that the level of differentiation and the histological sarcoma type, as well as the tumour- size have little influence on recurrence- rate. In contrast the resection status has an impact on local recurrence[11]. Since a negative resection status can rarely be ensured in the inguinal region, some authors recommend adjuvant radiation[4,9,10]. Due to the radiosensitivity of liposarcomas, this approach seems to be quite feasible[3]. Radiation- dose should be 60 Gy over 6 weeks and the radiation- field should cover the internal inguinal ring[4].

Due to their relative resistance against chemotherapy, a routine adjuvant systemic therapy is not justified in lipo- or any other seminal cord sarcoma. In contrast to other sarcomas of the seminal cord, metastatic disease of liposarcomas has not been reported[3].

No specific outcome- data are available for liposarcoma patients due to the rareness of this disease. A series of 32 seminal cord sarcoma patients reports a 15 years overall survival rate of 52 %. The 10- years local control- rate for the 8 patients with liposarcoma included in this series was

44 %[4].

As late recurrence can occur, follow-up examinations exceed 10 years[9].

CONCLUSION

Liposarcomas of the seminal cord are rare. Therapy should include a radical surgical excision usually administered by radical inguinal orchiectomy, and mandatory second resection and hemiscrotectomy in cases of unclear resection margins is feasible. If the margin- status is in doubt, adjuvant radiation should be performed. Distant disease has not been reported, but local relapse is common and may occur several years after primary therapy. Thus follow-up periods have to be of sufficient duration.

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