Outpatient treatment for liposarcoma of the spermatic cord

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Piergaspare Palumbo, Guglielmo Tellan*, Alessia Minicucci, Valerio Cozza, Sandro Bosco**, Francesco Vietri, Alberto M. Angelici.

Surgery Department "Francesco Durante", Sapienza, University of Rome, Italy
**Anaesthesiology Department*
***Pathology Department*

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Liposarcoma of the spermatic cord is a very rare neoplastic disease. In effect little more than two hundred cases are described in literature. Natural history of this tumour is characterized by high local recurrence rate although hematogenic and lymphatic spread is usually a late event and involves high-grade tumours. The clinical diagnosis of spermatic cord liposarcoma can be difficult particularly for non expert surgeons, and is often mistaken for different diagnoses. Radical orchiectomy with high cord ligation is the treatment of choice to prevent local recurrence. Otherwise than commonly advised, the treatment is suitable to be performed under local anaesthesia and the patient easily and safely discharged few hours after surgery.

KEY WORDS: Liposarcoma, Radical orchiectomy, Spermatic cord

Introduction

Liposarcoma of the spermatic cord is a very rare malignancy. It accounts for only 3-7% of all paratesticular sarcomas, and little more than 200 cases are reported in literature. Thus, they have a high clinical significance because of their involvement in the differential diagnosis of benign lesions in scrotal region. 70% of seminal cord tumors are benign and mostly derive from lipomatous tissue, the remaining 30% are malignant and they are usually sarcomas [1].

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Correspondence to: Prof. Piergaspare Palumbo, Via Alessandro Serpieri 13, 00197 Rome Italy (e-mail: piergaspare.palumbo@uniroma1.it)

Liposarcoma of the spermatic cord is generally a low-grade lesion, but its risk of local recurrence requires a wide surgical excision [2]. Nevertheless, the surgical treatment of the neoplasm can be easily performed under local anaesthesia, and performed as a day case, with a fast and safe discharge.

Case report

In January 2008 a 41 years old man was admitted to our Day Surgery Unit with clinical diagnosis of a mass on the right epididymis, whose size had been slowly increasing during the previous eight months. Clinical examination showed a painless scrotal mass in the right epididymis, less than 3 cm in size, soft-elastic in consistency. The ultrasound scan confirmed the presence of a solid, oval, hyperechogenic mass, well separated from the normal epididymal tissue. Surgical exploration, per-

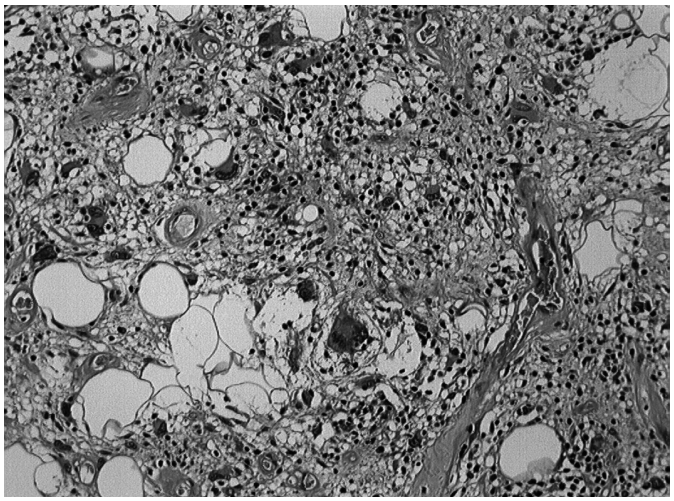

Fig. 1

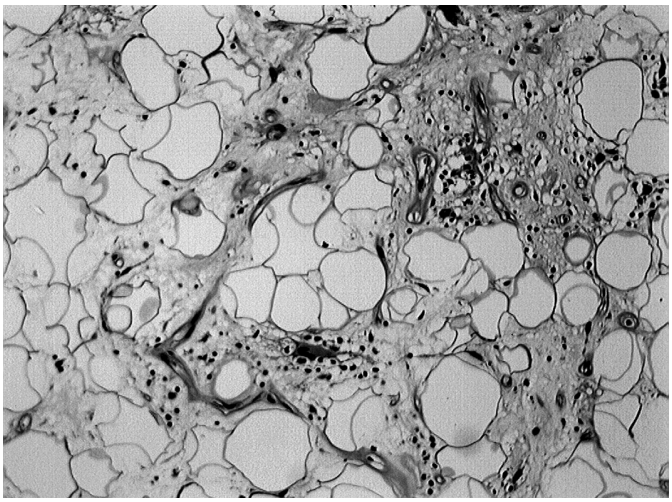

Fig. 2

formed under local anaesthesia, revealed a solid mass, easily removed from the right epididymis. The patient was discharged two hours after surgery in good local and general condition. The histological finding revealed pleomorphic liposarcoma (Figg. 1, 2). He was thus contacted, and a CT scan did not point out either metastatic disease or lymphatic involvement. The patient was readmitted to our Unit and radical orchiectomy with high cord ligation and partial scrotectomy was performed, and a testicular prosthesis was placed in the scrotum. The treatment was again performed under local anaesthesia, with fast discharge (four hours after surgery), and no complication in the short and long term was highlighted. Permanent sections demonstrated that resection tissue was free of disease. Follow up checks, carried out after 6, 12, 18, 24 month and then annually, (physical examination, US and CT scan) did not show up to now any evidence of local recurrence and/or systemic disease.

Discussion

The clinical diagnosis of liposarcoma of the spermatic cord is very difficult, and can delay a definitive treatment. It usually presents as a painless scrotal swelling that increases slowly in size in a period of time ranging from months to years and is often mistaken for other pathologies. Occasionally, patients report a rapid increase of an intrascrotal lesion [3]. Differential diagnosis includes hernia, spermatocele, hematocele, hydrocele, tuberculosis, syphilis and tumour of the testis, epididymis or testicular tunic, and might represent a true riddle for the non-expert surgeon. No specific diagnostic procedures for paratesticular liposarcoma are recommended. Clinical and radiological signs are non specific and the definitive diagnosis is generally postoperative, and based on histological examination of the operative specimen.

Ultrasonography may be useful in providing information about the consistency of the mass, although findings might be different. The sonographic features (hyper- vs. hypoechogenicity as well as definition of borders), in fact, are not predictive for the malignancy of the mass. Also CT-scans and MRI, although apparently promising tools, do not define the benign versus malignant nature of the lesion [4].

Liposarcoma has been histologically classified into four categories: well differentiated, myxoid, pleomorphic and dedifferentiated. This classification is of minor prognostic significance, except for the "well differentiated" type, whose prognosis is good [5]. Local recurrence risk is high, and scrotal recurrence occurs in up to 50% of the patients after simple local excision. For this reason the recommended treatment is radical orchiectomy with high cord ligation (at the internal ring) and wide local clearance. Furthermore, according to the specific case, partial scrotectomy is suitable [5]. Therefore, patients with inadequate resection or local relapse of disease, should undergo a reoperation. The treatment can be satisfactorily carried out under local anaesthesia, as usually performed in inguinal hernia repair, and can be provided by a step-by- step infiltration combined by a specific blockade of the ilioinguinal and iliohypogastric nerves [6]. The same day discharge, although occasionally reported in literature, is very effective and safe, mostly if the surgical équipe is conversant with scrotal and inguinal hernia surgery. The role of superficial inguinal or retroperitoneal lymphatic dissection in such neoplasm is uncertain and no therapeutic advantage has been attributed to this procedure [3]. Chemotherapy is not justified in the treatment of paratesticular liposarcomas because of their relative resistance to the treatment [4]. Adjuvant systemic therapy has not been adequately documented; however, occasionally, Doxorubicin has been used.

Riassunto

Il liposarcoma del funicolo spermatico è un tumore maligno assai raro; infatti in letteratura sono stati riportati poco più di 200 casi. La storia naturale della malattia è caratterizzata da un'elevata incidenza di recidiva locale, sebbene le ripetizioni linfatiche ed ematiche siano rare e si manifestino soltanto nei casi di neoplasia altamente indifferenziata. La diagnosi clinica può essere difficile, in particolare per il chirurgo non esperto, ed errori nei confronti di altre diagnosi non sono rari. Il trattamento di scelta è rappresentato dall'orchiectomia radicale, con legatura del funicolo all'anello inguinale profondo, per prevenire l'insorgenza di una recidiva locale. Diversamente da quanto generalmente descritto, l'intervento può essere eseguito in anestesia locale ed in regime di day surgery, con una rapida e sicura dimissione del paziente.

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