

## **Multiple liposarcomas of the groin - a diagnostic dilemma**

*Talwar A<sup>1</sup>, Assistant Professor Surgery, Department of Anaesthesia & General Surgery, Govt. Medical College, Faridkot, India*

*Puri N<sup>2</sup>, Registrar Anaesthesia, Department of Anaesthesia & General Surgery, Govt. Medical College, Faridkot, India*

*Singh M<sup>3</sup>, Professor and Head Surgery, Department of Anaesthesia & General Surgery, Govt. Medical College, Faridkot, India*

### **Abstract**

Liposarcoma is a rare tumour of the groin which is difficult to differentiate from a lipoma. We report a case of a 45 year old male who reported to the department of surgery with multiple swellings of the groin. The histopathological examination revealed a tumor mass composed of well-differentiated adipocytes interspersed by areas with spindle cell proliferation.

### **Introduction**

Lipoma is the most common benign tumor of the inguinal region. The lipoma is seen as a hyperechoic mass on sonography, which may be difficult to differentiate from a liposarcoma.<sup>1,2</sup> Most malignant tumors in the inguinal region are sarcomas. The most common sarcoma in the inguinal areas is a liposarcoma, which commonly occurs in adults. A liposarcoma is a bulky yellow tumor similar to a lipoma but generally more complex and contains areas of prominent sclerosis.<sup>4</sup> The sonographic findings of a liposarcoma are variable and non-specific. Early diagnosis and complete resection plays key role in the treatment of liposarcoma. Liposarcoma usually occurs in the deep soft tissues of extremities and in the retroperitoneum. It is the most common type of soft tissue sarcoma accounting for 30% of all mesenchymal tumors. There are no metastases and the overall prognosis is good.

### **Case report**

A 45 year old male presented with multiple swellings of the groin of 2 years duration. There was no history of pain in the groin. He denied any recent trauma to that area. Initially the swellings were small, but gradually increased in size over a period of one year and thereafter the size remained constant. On local examination, four swellings were seen in the groin area. The scrotum and penis were also swollen and distorted. The swellings had a soft consistency and were freely mobile without any fixation to the underlying structures. The physical examination revealed no discernable loss of motor or sensory lower extremity function. There were no specific abnormalities in the laboratory data, and the tumor markers were within normal limits. They were diagnosed as multiple lipomas and a biopsy a tumor mass composed of well-differentiated adipocytes interspersed by areas with spindle cell proliferation. In between lipoblasts were seen. The spindle cell area was mild to moderately cellular. The cells were separated by abundant collagen deposition and showed plump nuclei without any mitotic figures.

The spindle cells were seen infiltrating the adipose tissue, muscle fibers in the periphery, and reaching almost up to the skin entrapping the skin adnexa. No areas of hemorrhage or necrosis were seen. The ultrasonography of the groin swellings was done and it showed well defined hypoechoic masses with a minimal internal flow. Excision of the groin masses was done. At operation the tumor was observed to roll up the ipsilateral spermatic cord and testicular vessels, which led to the differential diagnosis of liposarcoma. The tumor was then widely resected along with the left testis, spermatic cord, and testicular vessels. Histopathologic study confirmed the diagnosis of well-differentiated liposarcoma, but no

malignant cells were found in any of the surgical margins. The postoperative course of the patient was uneventful. A periodical follow-up showed no evidence of recurrence or metastasis in the 6 months since his operation. The case is reported because of its rarity.

### **Discussion**

Liposarcoma is a rare mixed histologic subtype defined by the association of well-differentiated liposarcoma and a nonlipogenic sarcoma of variable histological grade usually with histologically abrupt transition<sup>5</sup>. According to WHO, low-grade dedifferentiated liposarcoma is defined as bland spindle cells with a fascicular pattern with cellularity intermediate between well-differentiated sclerosing liposarcoma and usual high-grade areas. The behavior of dedifferentiated liposarcoma as a whole is that of a high-grade sarcoma<sup>6</sup>. Good prognosis in de novo dedifferentiated liposarcomas seems unrelated to the extent, grade, or morphologic pattern of dedifferentiation. However, high mitotic activity in the dedifferentiated component was associated with more aggressive clinical course<sup>7</sup>.

### **Conclusion**

Liposarcoma can develop into either low-grade or high-grade dedifferentiated liposarcoma over a variable period of time. Prognosis is unrelated to the grade or extent but is related with mitotic activity of the dedifferentiated area. The case is rare and hence reported.

### **References**

1. Shadbolt CL, Heinze SB, Dietrich RB. Imaging of groin masses: inguinal anatomy and pathologic conditions revisited. *Radiographics* 2001; 21:261–271.
2. Van den Berg JC, Rutten MJ, de Valois JC, Jansen JB, Rosenbusch G. Masses and pain in the groin: a review of imaging findings.
3. Henricks WH, Chu YC, Goldblum JR, Weiss SW. Dedifferentiated liposarcoma: a clinicopathological analysis of 155 cases with a proposal for an expanded definition of dedifferentiation. *Am J Surg Pathol* 1997;21:271-81.
4. McCormick D, Mentzel T, Beham A, Fletcher CD. Dedifferentiated liposarcoma. Clinicopathologic analysis of 32 cases suggesting a better prognostic subgroup among pleomorphic sarcomas. *Am J Surg Pathol* 1994;18:1213-23.
5. Singer S, Corson JM, Gonin R, Labow B, Eberlein TJ. Prognostic factors predictive of survival and local recurrence for extremity soft tissue sarcoma. *Annals of Surgery*. 1994;219:165–173.
6. Lewis JJ, Brennan MF. Soft tissue sarcomas. In: Sabiston D, editor. *The Biological Basis of Modern Surgical Practice*. 15th ed. New York, NY: W. B. Saunders; 1997. pp. 528–534.
7. Vezeridis MP, Moore R, Karakousis CP. Metastatic patterns in soft-tissue sarcomas. *Archives of Surgery* 1983;118:915–918.