

## CASE REPORT

# Giant primary scrotal lipoma: A case report

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**Summary** *Lipomas are benign mesenchymal tumours that are rarely seen in the scrotum. Few cases of primary scrotal lipomas originating from the scrotal wall have been reported in the literature. We describe the case of a giant primary intrascrotal lipoma presenting as scrotal swelling and discomfort. Findings from scrotal magnetic resonance imaging were highly suspicious for lipoma. The mass was completely excised and histological examination confirmed the diagnosis of lipoma.*

**KEY WORDS:** Magnetic resonance imaging; Scrotal lipoma.

Submitted 22 June 2017; Accepted 19 July 2017

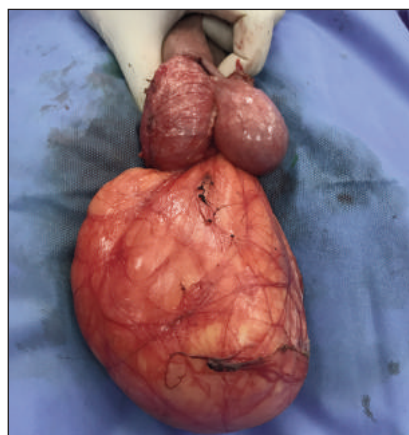
## INTRODUCTION

Lipomas are common benign mesenchymal tumours that may occur in any part of the body. These neoplasms, however, are rarely seen in the scrotum (1). In most cases, scrotal lipomas originate from the adipose tissue of the spermatic cord evolving towards the scrotum or develop in the spermatic cord itself. Lipomas that originate from the isolated adipose lobules of the scrotal subcutaneous tissue are uncommon and are called “primary scrotal lipomas” (2-5). We describe the case of a giant primary intrascrotal lipoma presenting as swelling of the scrotum causing discomfort.

## CASE REPORT

A 54-year-old man was referred to our Institution for swelling of the scrotum causing discomfort. His past medical history was unremarkable. On physical examination, an irreducible, elastic, regularly shaped mass was evident on the midline of the scrotum. Both testes and spermatic cords were found to be localized in the scrotum and were of normal consistency and size. Serum  $\alpha$ -fetoprotein, beta-human chorionic gonadotropin, and lactate dehydrogenase levels were within the normal ranges. Ultrasound evaluation showed a heterogeneous, hyperechoic solid mass, not infiltrating the testes. Magnetic resonance imaging (MRI) was required and revealed an 8 x 10 x 12 cm mass with homogeneous high signal intensity in T1-weighted images. No enhancement was seen after administration of gadolinium contrast material. These findings were highly suspicious for lipoma. Surgery was planned. A longitudinal midline scrotal incision was per-

formed. The testicles, epididymis and cord structures were intact. A well encapsulated, ovoid yellow-orange mass was found located within the scrotal wall and was easily removed (Figure 1). The incision was closed with no drainage and the postoperative course was unremarkable. The specimen weighed 600 g. Microscopic examination of the tissue revealed the presence of mature adipocytes and the absence of cellular atypia. Finally, the diagnosis of primary scrotal lipoma was made. Surgery provided a rapid resolution of symptoms.



**Figure 1.** Intra-operative photograph showing a lobulated yellow-orange mass.

## DISCUSSION

Intrascrotal lesions provide a diagnostic challenge for the urologist due to the multiple anatomic structures found in this confined space (3, 4). While most testicular lesions are malignant, the majority of tumours arising from extratesticular structures are benign (3). Despite rare, however, malignant neoplasms may also originate from extratesticular structures and include liposarcoma, leiomyosarcoma, malignant fibrous histiocytoma, rhabdomyosarcoma, mesothelioma, and lymphoma. Lipomas are the most frequent benign neoplasm of the scrotum. However, they are rarely seen in everyday clinical practice (5). These tumors may develop from the spermatic cord, from herniation of properitoneal fat or may originate from isolated fat cells of the subcutaneous tissues of the scrotal wall. In many cases, the specific site of origin cannot be easily identified. To our knowledge, there are very few cases of primary scrotal lipomas (i.e. lipomas

originating from the scrotal wall) published in the scientific literature. Symptoms vary with mass size and pressure caused with growing. According to literature data, the size may vary considerably and weight can reach 9 kg (2). Ultrasonography and MRI play a pivotal role in the evaluation of scrotal masses. Ultrasonography is the first-line imaging modality as it allows to determine whether a lesion is cystic or solid and its localization. Lipomas commonly appear as uniformly hyperechoic lesions, without internal flow at color Doppler imaging. However, ultrasound findings may be variable and are often nonspecific. MRI has the potential to narrow the diagnostic range and can be very helpful in the evaluation of lipomas as it can easily recognize fatty components. Indeed, high T1 signal intensity is characteristic of fat-containing tumors. Moreover, lipomas can be differentiated from liposarcomas on MRI by the lack of any enhancing soft tissue. However, lesions in this location may have overlapping imaging findings (5). Sometimes, well-differentiated liposarcomas may simulate benign lipomas and the differential diagnosis is complicated (2). The present case presented with typical MRI findings thus emphasizing the diagnostic role of MRI. Surgical excision, through scrotal or combined scrotal and inguinal incision, represents the treatment of choice for symptomatic lesions or when a definitive diagnosis cannot be made at imaging (5).

Surgical excision was required in the present case in order to manage symptoms. The surgical procedure we described was easy to perform, efficacious and safe.

## CONCLUSIONS

Primary scrotal lipomas are rare, benign tumors that should be taken into account in the differential diagnosis of paratesticular scrotal masses.

Surgical excision provides histopathologic diagnosis and resolution of symptoms.

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