Inflammation and infection

Huge scrotal lipoma posing a diagnostic dilemma: A case report and review of literature

K.N. Srivastava, Amit Agarwal*, Singh Som Siddharth Vikram, Mohit Gupta

Department of General and Minimal Access Surgery, BL Kapur Superspeciality Hospital, New Delhi, India

ARTICLE INFO

Article history:
Received 16 July 2017
Received in revised form 20 August 2017
Accepted 24 August 2017
Available online xxx

1. Introduction

Mesenchymal tumors of the scrotum are extremely rare. These include lipomas, liposarcomas, fibrosarcomas, fibromas, fibrolipomas and myxochondrosarcomas. Most lipomas occurring in the scrotum originate and develop in the spermatic cord. In rare cases, a lipoma can originate outside the spermatic cord or in the subcutaneous fat. Such lipomas can grow extra ordinarily large and pose as a diagnostic dilemma. We report a case of huge scrotal lipoma which posed as a significant diagnostic challenge before being referred to a specialized centre.

2. Case report

We report a case of 29 year old male was came to us after having multiple consultations with various general practitioners, and not having formed a diagnosis. He has a progressively increasing lump in the left scrotum since 1 year. The lump was not painful and it did not increase or decrease in size with episodes of exertion or rest respectively. There was no other significant positive history. On examination it was large (15 x 10cm), non tender, soft lump with well defined margins (Fig. 1). The lump was localized in the left scrotum only and was not reducible. The left testis was felt separately and was normal.

A working diagnosis of left scrotal paratesticular tumor was made and the patient was investigated. A FNAC, USG and Contrast MRI of the scrotum revealed it to be a localized lipoma (Fig. 2).

After thorough pre operative work up the patient was taken up for excision under spinal anaesthesia. A scrotal incision was given and the lump, which was found to be large lipoma separate from the testis and the spermatic cord structures was excised en mass (Fig. 2). The wound was closed primarily.

Post operative and follow up phases were uneventful. The histopathology report also revealed the said lump to be a lipoma.

3. Discussion

Scrotal lipomas, although rare, are the most common benign intra scrotal neoplasms. Leysen et al. proposed a classification of these tumors in two broad categories (paratesticular and extratesticular) with many subdivisions, according to their site of origin. Another more practical classification was described by Minami. He divided intrascrotal lipomas into three types: (a) those originating from the subcutaneous tissue posterior to the spermatic cord, which spread into the scrotum and are called scrotal lipomas, (b) those arising from the fat tissue within or outside the spermatic cord, which develop in the spermatic cord and are called spermatic cord and tunica vaginalis tumors and (c) those originating from fat lobules of the dartos tunica of the scrotum which are rarely seen and called primary scrotal lipomas. This latter classification seems easier to adopt and according to this our lipoma should be classified as a scrotal lipoma.

Very few scrotal lipomas have been reported in the literature, although lack of a uniform classification system makes it difficult to estimate the exact number. These tumors are known to be quite huge. Our lipoma was nearly 15 cm x 10 cm. Although it is commented that primary lipomas of the scrotum tend to occur in boys and young men, whereas other types of scrotal lipomas are generally found in men between 40 and 60 years of age, our patient had a scrotal lipoma at the age of 29.

Ultrasonography, CT and MRI scans play an important role in the evaluation of scrotal masses. Ultrasonography, being most easily available, forms the first line of investigation. It can determines whether a lesion is intratesticular or extratesticular and furthermore delineates its cystic or solid nature. Solid extratesticular...
masses, like the one reported, are more difficult to diagnose. While most such tumors are benign, uncertainty might arise sometimes especially in huge masses like the one reported, when the entire mass cannot be shown to be lipoma. Even FNAC cannot clearly distinguish a benign lesion from a malignant one due to heterogeneity of the mass. Routine radiological imaging may also confuse between a well circumscribed liposarcoma and lipoma. MR imaging is especially helpful in such cases as it is the most sensitive tool to distinguish a benign mass from a malignant one thereby helping in deciding the course of management. A discrete homogenous encapsulated fatty mass is most certainly a lipoma. However a large lipoma may have few non adipose components as well like muscle fibers, blood vessels and fibrous tissues. These findings mimic those of a well differentiated liposarcoma.

Surgical excision – through scrotal or combined scrotal and inguinal incision remains the treatment of choice. In benign lesions simple enucleation will suffice, while radical inguinal excisions should be performed in case of malignancy.

4. Conclusions

Extratesticular tumors are rare tumors of the scrotum which can grow exceptionally large and pose significant diagnostic challenge. Radiological imaging especially USG and MR are helpful in establishing diagnosis. Surgery remains the treatment of choice. Although majority of lesions are benign, sarcomas do occur and should be suspected when masses are large, heterogeneous and infiltrate other scrotal structures.

5. Conflict of interest statement

The authors of this case reports have no conflict of interest.

References

1. Rosenberg R, Williamson MR. Lipomas of the spermatic cord and testis: report of
two cases. J Clin Ultrasound. 1989 Nov-Dec;17(9):670–674. Lipomas of the spermatic cord and testis: report of two cases.

2. Kim SO, Im CM, Joo JS, et al. Scrotal primary lipoma with unusual clinical appearance in newborn. Urology. 2009 May;73(5):1024–1025. http://dx.doi.org/10.1016/j.urology.2008.11.018. Epub 2009 Feb 4.

3. Florante J, Leyson J, Doroshow LW, et al. Extratesticular lipoma: report of 2 cases and a new classification. J Urol. 1976;116:324–326.

4. Mostofi FK, Price CB. Tumors of the male genital system. In: Atlas of Tumor Pathology. Washington D.C: Armed Forces Institute of Pathology; 1973.

5. Fujimura N, Kurokawa K. Primary lipoma of the scrotum. Eur Urol. 1979;5:182–183.