

Case Report

Rare para testicular lipoma: The largest one reported till date

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ABSTRACT

Lipomas within the scrotum are extremely rare and most of which develop from contents of the scrotum rather than the walls themselves. Intrascrotal lipoma can be classified as paratesticular and extratesticular lipoma. Here we describe a patient with a huge scrotal mass which, to our knowledge, is one of the largest paratesticular lipoma ever reported in the literature.

Keywords: Lipoma, Paratesticular lipoma, Fatty hernia, Spermatic cord, Testis, Scrotal Swelling

INTRODUCTION

Fat within the inguinal canal is frequently seen during herniotomies. Fat within the inguinal canal and scrotum should not be looked upon as abnormal and a study of the embryology (Figure 1) of the scrotum and inguinal canal, together with their contents, signifies that fat is a normal content. The scrotum is formed by a constriction of the lower walls of the abdomen. This constricted portion of the lower abdominal wall naturally contains peritoneum which lines the scrotum from the time of its origin; and later when the testicle descends, it wraps itself around this organ forming both of its tunics, i.e. vaginalis viscerum and vaginalis parietum. Therefore, the mesothelial tunics of the testicle and cord, which are nothing more than constricted peritoneum, precede the testicle and cord into the scrotum. In exploring undescended testes the so-called sac is always found extending lower than the testicle, proving its priority in situ. One characteristic of sub peritoneal areolar tissue is the favoring of depositions of fat (Figure 2), which is so beautifully shown by the work of Gage and Fish (American Journal Anat., 1924).¹ If the intra-abdominal subperitoneal tissue favors fat deposits, it is natural to assume that the inguinal and scrotal subperitoneal tissue would also. We see this demonstrated in operating upon

inguinal hernias where so frequently we find fat deposited along the cord and connected, through the internal ring, with the intra-abdominal subperitoneal fat. Here we describe a lipoma arising from fat present in mediastinum of testis from its medial surface.

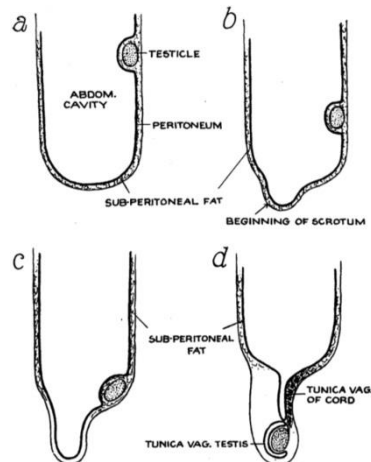


Figure 1: Embryological formation of the scrotum showing the natural tendency of deposition of subperitoneal fat around the testicle and spermatic cord.

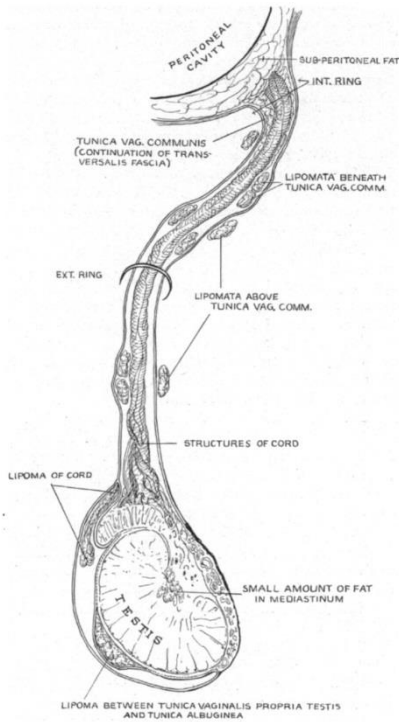


Figure 2: Fatty tumor of the testicle which may have arisen from subperitoneal fat deposited beneath the tunica vaginalis viscerum.

CASE REPORT

A 66 year old man came to our outpatient department with chief complaint of left side painless scrotal swelling since 1 and half year. Patient had history of bilateral lower limb below knee amputation done 4 years back due to peripheral vascular disease. Patient did not have any history of trauma to scrotum, fever, nausea, vomiting, reducibility, chronic cough, constipation, heavy weight lifting. On Examination, patient had single large oval swelling of size 13.5x10x5 cm in the left scrotum which was non-tender, non-fluctuant and cough impulse negative. The mass was non-reducible and careful examination revealed that it was confined to the scrotum and not extending beyond the external inguinal ring. The mass had no transillumination and diagnosis of hydrocele was excluded. Ultrasound examination revealed a large well defined echogenic lesion in left scrotum suggestive of lipoma. An operation using a left scrotal incision similar to hydrocele was performed. Incision was deepened through all the layers i.e. skin, dartos, external spermatic fascia, cremasteric muscle and fascia, internal spermatic fascia and tunica vaginalis. A well encapsulated lipoma (Figure 3) located within the tunica vaginalis and arising from testis from its medial border was identified. The lipoma was excised along with tunica vaginalis and sent for histopathology. After achieving the haemostasis an anatomical closure was done keeping 16 FG suction drain in situ. On gross pathological examination (Figure 4), an encapsulated mass measuring 14x10x4cm with yellow-white and uniform greasy cut surface with irregular lobular pattern was seen, while on

microscopy the presence of mature fat cells in admixture with fibrous connective tissue was revealed suggestive of Lipoma.

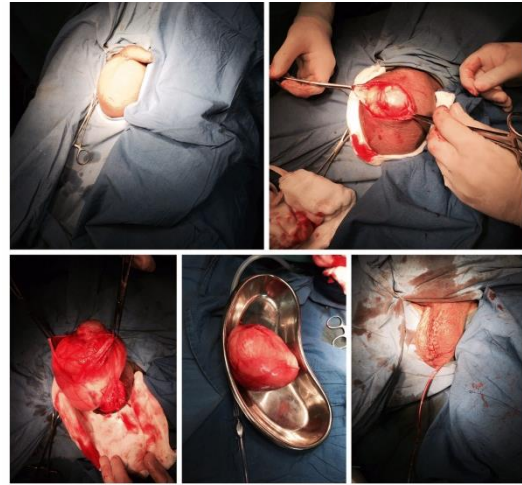


Figure 3: Preop, Intra Op, Post Op images.

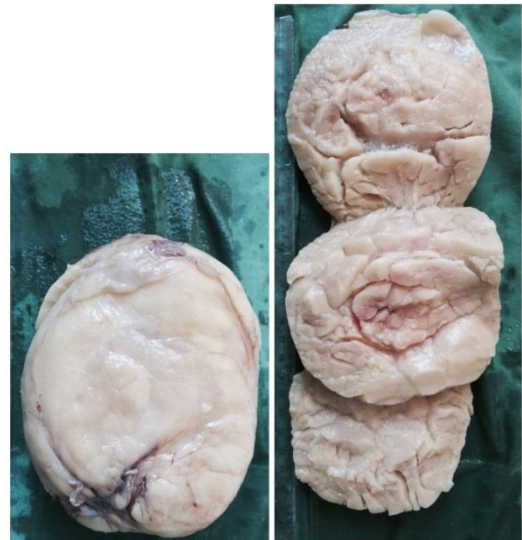


Figure 4: Gross Histopathology specimen.

DISCUSSION

Lipomas, although rare, are the most common benign neoplasms of intrascrotal tissues and spermatic cord. However there are no uniform classifications that exist. Leyson *et al.*,² proposed a classification of these tumors in two broad categories (paratesticular and extra testicular) with many subdivisions, according to their site of origin (Table 1). After a thorough search of the literature in preparation of an article that was read before the Minnesota State Medical association in June, 1926, entitled “The Relation of sub peritoneal Fat to Abdominal Hernia” only 8 cases of lipomas in relation to testes and cords were reported from the time of Hippocrates. A few other articles, of similar title, when carefully analyzed were easily determined to be tumors ‘originating from the lower portion of the spermatic cord. Monod and

Terrillon³ (Traite Des Maladies du Testicule et de Ses Annexes, Paris, 1889, p. 699), in the most complete work up to 1889 on diseases of the testicle and annexed structures states that the only true case they were able to find was that reported by Roswell Park. After reporting his case, Park⁴ cites the cases of De Guise⁵ and Jobert⁶ as tumors of the testicle. De Guise⁵ and Jobert⁶ first thought that they each had found a lipoma of the testicle, but upon careful dissection they found in each instance that the tumors had descended from the lower portion of the spermatic cord. Even Park's⁴ famous case can be looked upon as more likely originating from the lower spermatic cord than from the testicle. J. A. Orr⁷ and J. Morgan⁸ each report fatty tumors of the testicle; they described them as discharging fungoid masses. The case of H. J. De Rooy⁹ is a true fatty tumor of the testicle as well as the case reported by H. A. L. WV. A. H. Grote.¹⁰ It is interesting to note that Karewski¹¹ reports a case of lipo-sarcoma originating from the tunica vaginalis testes.¹²

Table 1: Classification of intrascrotal lipomas according to their site of origin, as stated by Leyson et al.

Classification of intrascrotal lipomas according to site of origin	
A Paratesticular	B Extratesticular
1. Spermatic cord	1. Properitoneal, preperitoneal or subperitoneal fat herniation
2. Epididymis	2. Subserous fat around inguinal ring
3. Tunica vaginalis	3. Fasciae and transversalis muscle of perineal area
4. Testicle	4. Perineum
	5. Isolated fat lobules from subcutaneous tissues of the scrotal wall

It is therefore proposed¹³ that the management of these tumors should be identical, consisting of a scrotal and inguinal exploration, regardless of whether the condition is believed to be benign or malignant. If the condition is benign, simple enucleation will suffice, while radical inguinal castration should be performed in case of malignancy. Recently, however, MR imaging can be very helpful by depicting with certainty benign lipomas, obviating in this way surgery or changing surgical approach.¹⁴ Surgical excision – through scrotal or combined scrotal and inguinal incision – remains the treatment of choice in most cases, and although the majority of extra testicular lesions are benign, sarcomas do occur and should be suspected when masses are large, heterogeneous and envelop or infiltrate other scrotal structures.

CONCLUSION

In case of painless progressive non transilluminant scrotal swelling, paratesticular lipoma should be considered as differential diagnosis. Ultrasonography and Magnetic resonant imaging of scrotum is recommended to identify the possibility of malignant changes. A scrotal or combined inguino-scrotal surgical approach provides adequate exposure for enucleation or radical surgery. Surgical enucleation for benign lesion and radical inguinal castration should be performed in case of malignancy.

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