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An Atypical Case of Scrotal Swelling - Masquerading As Third Testis

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ABSTRACT

We report a case of unusual scrotal swelling in 21year old boy with no other scrotal complaints. After basic imaging modalities available here, there was still confusion in diagnosis. Surgical excision of swelling was planned. Histopathological examination turned out to be rare case of lymphangioma of scrotum.
This report has special emphasis on clinical, ultrasonographic, and histopathological findings.

Keywords- Scrotum, testis, lymphangioma.

INTRODUCTION

Scrotal swelling can be congenital or acquired. Swelling can occur due to injury or underlying medical or surgical conditions. It may be caused by a buildup of fluid, inflammation, or an abnormal growth within the scrotum. The swelling may be painless or painful.
Scrotal swelling can occur rapidly or slowly.

Common causes of scrotal swelling are trauma, testicular tumour, testicular torsion, orchitis, varicocele, hydrocoele, hernia, epididymitis, congestive heart failure, hypoproteinemia, inflammation or infection of the scrotal skin.

Lymphangiomas are nothing but benign non-encapsulated lesions which are made up of sequester of non-communicating lymphoid tissue which is lined by lymphatic endothelium. Lymphatic hamartomas which are congenital are lymphangiomas, 95% of which occur in neck and axilla. [1]

Lymphangiomas are commonly seen in axilla and neck region. Unusual sites being scrotum and retroperitoneum. [2] The scrotum is one of the rarest sites for lymphangioma. It can involve scrotal wall, tunics, testis, epididymis, spermatic cord or Colle's fascia. [3]

CASE PRESENTATION

A 21 year old gentleman with no co-morbidities came to surgery OPD with a painless welling in scrotum in midline since 1 month with no other complaints.
On physical examination there was a solitary, well-defined swelling in left hemiscrotum, approximately 4*3*3 cm in size, variegated (soft to firm) in consistency, with no fluctuation or transillumination, and left testis & epididymis was separately palpable.
Right testis was normal in size, shape, location and consistency.
Position of penis was normal, skin over the swelling was normal.

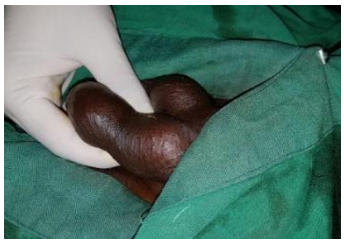

Figure 1

No palpable inguinal lymphadenopathy.
Our differential diagnosis was epididymal cyst, encysted hydrocoele, dermoid cyst.
There was no abnormality seen in all routine blood investigations.

Ultrasonography was suggestive of solitary, well-defined, complex cystic lesion of size approximately 4*3cm found to be extra-testicular, avascular, completely filled with free floating internal echoes. Bilateral testes, epididymis and spermatic cord were normal. No other abnormality noted.

Patient was planned for surgical excision of swelling.
The intra operative was a solitary nodular mass measuring 4*3*3cm separate from left testis, epididymis and vas deference. In total excision of mass was done. Post operative event was uneventful.

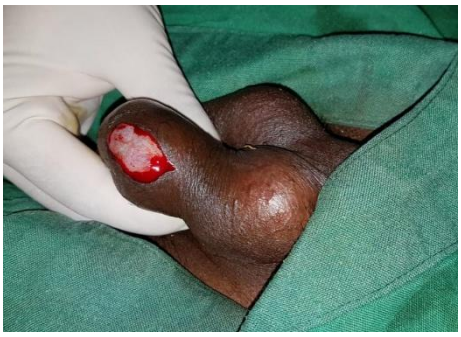

Figure 2

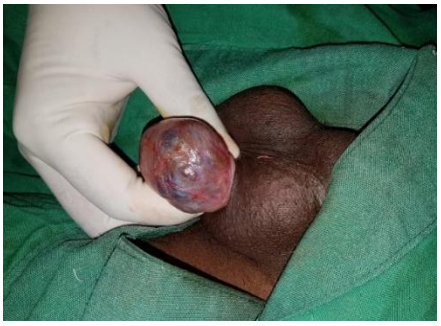

Figure 3

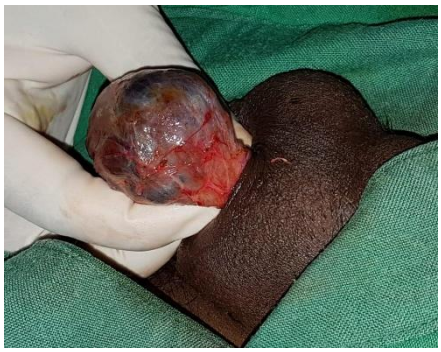

Figure 4

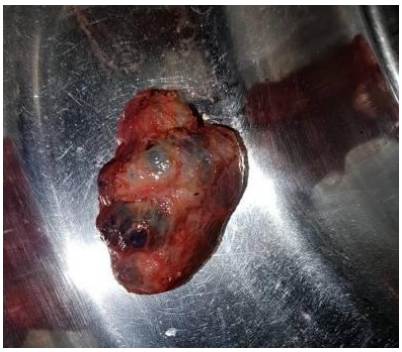

Figure 5

Histopathological finding was multiloculated spongy cystic mass filled with dark brown fluid, suggestive of lymphangioma (cystic) scrotum.

DISCUSSION

Benign non-encapsulated lesions composed of sequestered non-communicating lymphoid tissue which is lined by lymphatic endothelium are nothing but Lymphangiomas

(i) Capillary, (rare and located in the subcutaneous tissue), (ii) Cavernous (located around the mouth and tongue), and (iii) cystic, are the three varieties of lymphangioma

The cystic form is the most common variety

Lymphangioma results from inadequate drainage of lymph from sequestrated lymphatic vessels and are considered to be lymphatic hamartomas. Most of these are congenital due to paucity or atresia of the efferent lymphatics or lack of communication between lymphatics and venous channels. [1] These lesions can also be acquired because of obstruction of lymphatics after inflammation, trauma or degeneration. [3]

The pathophysiology of lymphangioma was first studied by Whimster in 1976. [9] He noticed the basic

collection of primitive lymphatic cisterns in the deep subcutaneous plane, which fail to connect with the rest of the lymphatic system during their embryonic development as a basic pathological process. This is thought to be caused by congenital obstruction of lymphatic drainage.

Half of these are recognized at birth, 90% are evident by the age of 2 years and 95% occur in the neck or axilla. Unusual sites are scrotum, retroperitoneum, intraperitoneum, gluteal region, mediastinum, groin, pelvis, mesentery, omentum and spleen. [1, 4, 5]

Singh et al reported thirty two cases of cystic lymphangiomas in children, and only one was located in the scrotum. [1] Loberant et al estimated that less than fifty cases of scrotal cystic lymphangioma have been reported in literature till 2002. [6]

When scrotum is involved, it is usually misdiagnosed as hernia, hydrocele, varicocele, large epididymal cyst or acute scrotal conditions which may lead to inadequate treatment with a risk of recurrence. [2, 5, 7] Hurwitz et al reported seven cases of scrotal cystic lymphangioma over a period of ten years, all of which were misdiagnosed preoperatively. [7]

The intrascrotal occurrence of lymphangiomas is uncommon in children, especially when they do not relate to testicular structures. [8]

Surgical excision of the entire mass along with the overlying skin is the treatment

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