## **Case Report**

DOI: http://dx.doi.org/10.18203/2349-3291.ijcp20181558

# Inguinoscrotal lymphangioma mimicking hydrocele: a case report

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Received: 23 December 2017 Revised: 29 January 2018 Accepted: 13 February 2018

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#### **ABSTRACT**

Scrotal lymphangiomas are hamartomata's lymphatic malformations with no risk of malignant transformation, resulting due to inadequate drainage of lymph from sequestered lymph or lack of continuation between lymphatics and venous channels. Here we report a case of scrotal lymphangioma in a 1.5 years old child who presented with scrotal swelling and misdiagnosed as hydrocele. Child was managed successfully with surgical resection of the mass and doing well now.

Keywords: Inguinoscrotal lymphangioma, Recurrent scrotal swelling

### INTRODUCTION

Inguinoscrotal masses are common presentation in the outpatient department. The common causes of the mass are inguinal hernia, lymphadenopathy, hydrocele and tumors. Author are here reporting a case of right inguinoscrotal lymphangioma in a one and half year-old male child. It recurred twice after surgery due to misdiagnosis of congenital hydrocoele.

It was successfully managed by total excision through scrotal incision. Although rare, this condition should be kept in mind as differential diagnoses of scrotal swelling. Due to rarity we are prompted to report this case.

## **CASE REPORT**

A 1.5 years old male child presented with a scrotal swelling which was operated outside twice for congenital hydrocoele. Patient presented to us with recurrent scrotal swelling. On examination there was a mass confined to inguino-scrotal region which was painless progressively increasing in size. On local examination swelling was

5x5cm, cystic nontender on palpation with normal temperature, testis and spermatic cord were felt apart from swelling.

The swelling was translluminant, non-reducable, cough impulse was negative (Figure 1). The cystic swelling was tapped thrice with wide bore needle. It contained clear fluid and about 20 to 30 ml fluid was aspirated. When it was tapped fourth time it contained blood. A possible diagnosis of inguinosrotal lymphangioma was kept and it was confirmed with ultrasonography.

Ultrasonography showed well defined multiloculated cystic lesion of 5x4.7x2.47cm size in right scrotum with multiple septations and internal echoes which was confirmed as inguinoscrotal lymphangioma. The child was operated, swelling was excised through scrotal incision in total and sent for histopathological examination. Histopathology report came confirmed the diagnosis of lymphangioma (Figure 2, 3). Postoperative period was uneventful, and patient is doing well after 3 months.

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Figure 1: Inguinoscrotal swelling with an inguinal scar of previous operation.



Figure 2: Excised mass on gross examination showing multicyclic appearance.

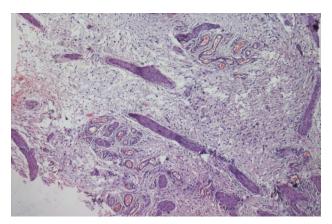


Figure 3: Photomicrograph showing (400X) dilated vessels, smooth muscle fragments and connective tissue stroma, fibroblasts and collagen fibers.

### **DISCUSSION**

Scrotal lymphangiomas are hamartomata's lymphatic malformations with no risk of malignant transformation, resulting due to inadequate drainage of lymph from sequestered lymph or lack of continuation between lymphatics and venous channels; but can also be

acquired, secondary to infection, inflammation, or trauma.<sup>1</sup>

Majority of cases of congenital lymphangioma present by 2 years of age. Lymphangiomas most commonly arises in neck or axilla. Scrotum, retroperitoneum, gluteal region, mediastinum, groin, pelvis, mesenrty, omentum and spleen being very rare sites.<sup>2</sup> Scrotum being an extremely rare site for lymphangioma. Patient usually presents with slow growing, benign, painless, extra testicular scrotal swelling.<sup>3</sup> The diagnosis is confounded by multiple differential diagnosis including a hernia, hydrocele, varicocele, hematocoele, spermatocoele.<sup>4</sup>

Rarely, a scrotal lymphangioma may present with acute scrotal pain, being mistaken for testicular torsion. Hemorrhage into scrotal lymphangioma is an extremely rare complication, and if it occurs, patient may present with acute scrotum, posing a diagnostic dilemma leading to inadequate treatment and high recurrence rate. <sup>5,6</sup>

The cystic spaces are filled with serous lymphatic fluid. The etio-pathogenesis of lympangioma is failure of primitive lymphatic cisterns in deep subcutaneous planes to connect with rest of lymphatic system during fetal life. Based on histological appearance, they can be of 3 types: capillary, cavernous and cystic, most common being cystic form. The histopathological features consist of increase number of dilated lymphatic vessels lined by endothelium. The connective tissue stroma has spindle shaped smooth muscle cells, collagen and fibroblasts. On immunohistochemistry lymphatic endothelium stains positive for D 240 immunostain. In general, the diagnosis is based on clinical history, physical examination, and conventional light microscopy.<sup>7</sup>

Hence, if the correct diagnosis is made preoperatively, to ensure surgical excision, approach for exploration would be inguino-scrotal. High resolution USG is accurate for determining the type and extent of lesions. USG findings are multicystic extratesticular mass with septations. With color doppler, lesions can be further characterized, as it can be seen as moving internal echoes with hypoechoic lesions.<sup>8</sup>

Medical treatment available for lympangiomas includes sclerosant injection, fulgration, laser or cryotherapy but has high recurrence rates. The gold standard for treatment is complete surgical excision of mass. Iguino-scrotal lympangiomas remains very rare entity. However, awareness of their existence prevents their misdiagnosis, facilitating optimal management.

#### **CONCLUSION**

Lymphangioma of scrotum is a rare cause of inguinoscrotal swelling. A good clinical examination and ultrasound helps in arriving at diagnosis. The complete surgical resection is standard of care for the management. Funding: No funding sources Conflict of interest: None declared Ethical approval: Not required

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**Cite this article as:** Yadav S, Rattan KN, Yadav P, Gavhane S. Inguinoscrotal lymphangioma mimicking hydrocele: a case report. Int J Contemp Pediatr 2018;5:1137-9.