Case Report

A Rare Case of Encysted Type of Spermatic Cord Hydrocele in 2-year-old Child

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Hydrocele of the Spermatic Cord is a rare anomaly which occurs when there is failure in closure of processus vaginalis. It usually manifests in infancy and childhood. There are two conditions of hydrocele of Spermatic Cord : (1) Encysted type and (2) Funicular type. We are reporting imaging findings in a 2-year male child who was brought to paediatric surgery department with chief complaints of swelling in right Inguino-scrotal region for 8 months. On high frequency ultrasound of Inguino-scrotal region, an anechoic oval cystic lesion with multiple septations within was present above the superior pole of right testis and extending up to the right inguinal region suggestive of spermatic cord hydrocele which later confirmed on surgery.

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Key words **: Spermatic Cord Hydrocele, Encysted Hydrocele, Funicular Hydrocele, Inguino-scrotal Swelling, Ultrasound of Scrotum.**

When closure of processus vaginalis hampered then hydrocele of Spermatic Cord anomaly occurs. This anomaly presents as a swelling in inguinal region which can be extend towards the scrotum. This anomaly is rare. There are two types of Spermatic Cord Hydrocele. These are as follows: encysted type and funicular type[1]. First one does not communicate with peritoneal cavity while second one have's connection with peritoneal cavity. Ultrasonography can be used to confirm the diagnosis. This case report depicts the clinical investigation of Spermatic Cord Hydrocele in 2-year-old boy[1,2].

Case Report

A 2-year-old child was come to paediatric surgery OPD with chief complaints of swelling in right Inguino-scrotal region (Fig 1). This swelling is present since 8 -9 months. As per history told by mother that patient is not complaining of any tenderness over the swelling. The patient had no bowel or bladder complaints. Past history was insignificant.

On local examination, it shows positive transill umination test, cough impulse test was negative. Both testes show normal position. A swelling measurement comes around 5 x 2 cm. Manual reduction of swelling was tried but it fails to reduce it (Fig 2). On ultrasonography of Inguino-scrotal region: An anechoic oval cystic lesion of size (5.5 x 2.3 x 2.4) cm with multiple septations within is noted above the upper pole of right testis extending into the right inguinal region.

Bilateral testes are normal in position, size, shape, echo pattern and vascularity on colour doppler.

Based upon sonographic findings diagnosis of encysted type of Spermatic Cord Hydrocele was given which was confirmed on surgery.

Editor's Comment :

- Encysted spermatic cord hydrocele, although rare, should be considered in the differential diagnosis of scrotal swellings in young males.Radiological imaging, such as ultrasound, plays a crucial role in accurate diagnosis.
- Early detection and appropriate management are essential to prevent complications and ensure optimal outcomes.

Fig 1 — Clinical image showing swelling in right inguinoscrotal region (white arrow)

Discussion

According to embryological development testes are formed in retroperitoneal location and descends into scrotal sac between twenty-eight to thirty-two weeks of gestation[2].

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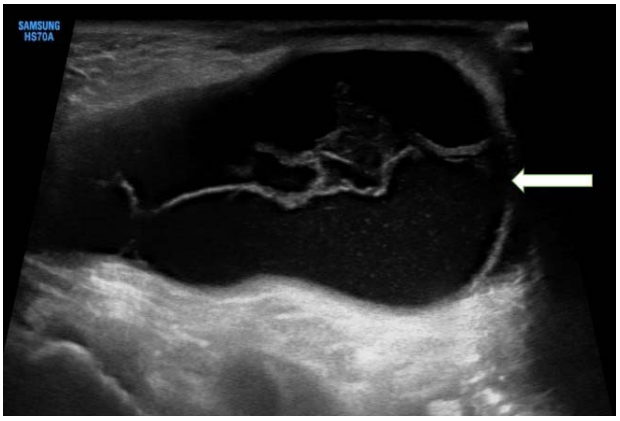

Fig 2 — On B-mode ultrasonography, an anechoic oval cystic lesion (white arrow) is seen with multiple septat

Processus vaginalis has two layers of peritoneum which closes at proximal end near the internal inguinal ring and distal end is above the epididymis. The segment between proximal and distal end involutes. Defect in joining of proximal and distal end leads to Spermatic Cord Hydrocele.

Encysted hydrocele occurs when there is failure of involution involving the middle segment but both ends are closed[3]. Spermatic Cord Hydrocele generally presented as firm, mobile mass in inguinal region and it can extend towards the scrotum[4]. Spermatic cord hydrocele is classified into two varieties encysted with no communication of peritoneal cavity and funicular type has communication with peritoneal cavity. On Ultrasonography encysted type presents as loculated collection above the testis. While funicular type presented as an anechoic collection separated from the testis inferiorly but communicate with the peritoneal cavity[5]. In both types we can see septations, avascularity.

The differential diagnosis of Inguino-scrotal swellings is indirect inguinal hernia, undescended testis, epididymo-orchitis, inguinal lymphadenitis, Para testicular tumors such as lipoma Management is decided according to patency of processus vaginalis, conservative management is done in encysted variety hydrocele, because it generally resolves by 12 months of age. If it doesn't resolve then we do surgical management. Funicular type requires surgery as they considered as potential hernia[6].

Conclusion

Spermatic Cord Hydrocele is rare paediatric condition presented as firm, mobile mass in the inguinal region which can be extend to the scrotum. Ultrasonography is a simple, non-invasive, not using any radiation and highly accurate imaging modality for its early diagnosis and patient management.

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