

Spermatic Cord Hydrocele In Adults: Experience Of Three Cases.

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Abstract: *A number of pathologies can present as groin swelling in adults. Among these, hydrocele of the cord presenting as swelling in adults is rare. Three cases of spermatic cord hydrocele in adult patients were noticed by the author in one year period. Two were of encysted hydrocele and one of funicular hydrocele of cord. The case of funicular hydrocele of cord was 32 year old male, diagnosed as irreducible femoral hernia at initial presentation. In this case excision of cord swelling, closure of peritoneal sac and mesh repair of posterior wall of inguinal canal was performed.*

Keywords: *Cord hydrocele, encysted hydrocele, funicular hydrocele*

I. Introduction

Hydrocele of spermatic cord is caused by defect in closure of the processus vaginalis, as the testicle descend into the scrotum during foetal development. It is more commonly seen in childhood and rarely in adults(1). There are two types of hydrocele of spermatic cord. Encysted type is caused by defective closure at both proximal and distal ends of processus vaginalis and it does not communicate with the peritoneal cavity. Funicular type is caused by defective closure of only distal end of tunica vaginalis and it communicates with the peritoneal cavity. The encysted type can be confused clinically with an inguinal mass, lymphadenopathy, hernia and also primary tumor of the cord (2). Here in we present experience of three cases of spermatic cord swellings of adult patients.

II. Material Methods & Results

Operated three cases of hydrocele of cord in adult male patients during last one year (May 2015-April 2016), of age 23 years, 26 years and 32 years. All three patients presented with swelling in groin region. Initial two cases were of encysted hydrocele of the cord and required excision of swelling.

The third patient was a 32 year old male presented with swelling in left groin of 2 months duration. For last 2 days the patient had local pain in groin area, so he reported to emergency service. General physical examination as well as systemic examination were normal. On local examination a globular, soft, tender mobile swelling measuring 2.5cm x 2cm, with negative cough impulse was present in left inguinal region. The swelling could be felt completely separate from the testicle. Transillumination test as well as traction test were negative. Genitalia examination was normal. In view of free mobile swelling with normal superficial abdominal ring a diagnosis of left femoral hernia was made. At operation swelling of 2.5cm x 2 cm was present in left superficial inguinal area in cord structures (Illustration 1). External sheath incised and further mobilization of cord structures confirmed a swelling in cord and below that up to testes veins were varicose. There was also a peritoneal sac coming up to the swelling. Closure of peritoneal sac done and repair of posterior wall of inguinal canal done by prolene mesh placement. Excision of swelling done (Illustration 2) and histopathological examination of cyst wall showed fibro-collagenous tissue infiltrated with chronic inflammatory cells. Post operative recovery was uneventful and patient was perfectly well when last seen at 6 months follow-up visit.

III. Discussion

Spermatic cord hydrocele is a collection of fluid along the spermatic cord that lies superior to the testicle and does not communicate with the scrotal sac. It is a rare congenital anomaly resulting from abnormal closure of the processus vaginalis. There are two types of spermatic cord hydrocele: The first is encysted hydrocele, in which the fluid collection does not communicate with the peritoneum above or the tunica vaginalis below. The second is funicular hydrocele, in which the fluid collection communicates with the peritoneum at the internal inguinal ring but does not communicate with the tunica vaginalis(3). With spermatic cord hydrocele present with inguinal swelling that is usually firm with positive findings at transillumination. Funicular hydrocele may increase in size with crying or straining (3). It can be reduced into the peritoneal cavity but it usually recurs.

At US, the specific diagnosis of a funicular hydrocele can be made when there is an anechoic collection separated from the testis inferiorly, with communication with the peritoneal cavity at the internal

inguinal ring. Peristaltic or non peristaltic bowel loops as well as any vascularity ,should be absent(4) US can be used to easily differentiate between encysted hydrocele and funicular hydrocele if one looks closely at the internal inguinal ring . Encysted hydrocele manifests as a loculated collection above the testis with a closed internal inguinal ring(4)

Differentiation between spermatic cord hydrocele and scrotal hydrocele at US is important as the management of these entities is different . In patients with a spermatic cord hydrocele, fluid is seen above the testis, without any fluid in the scrotal sac. In patients with a simple scrotal hydrocele, fluid is seen around the testis that may or may not communicate with the peritoneal cavity . It is essential to tell the surgeon whether or not a scrotal hydrocele is communicative above, as the treatment of communicating scrotal hydrocele is the same as that of an inguinal hernia (5). Noncommunicating scrotal hydrocele is common in infants ,and it usually resolves by 12 month of age . Surgery is indicated if non-communicating scrotal hydrocele does not resolve by 12-18 months of age or if it becomes larger in size (6) . On the other hand, funicular hydrocele is usually considered as a potential hernia, and prophylactic herniotomy is usually performed (3,4)

In summary ,differentiation of both varieties of spermatic cord hydrocele (funicular, encysted) from simple scrotal hydrocele with US is essential before operation , as the management of these entities is different. Further in adult spermatic cord hydrocele cases one should be suspicious to have funicular variety as in our third case (illustration 1,2).



Illustration 1: Showing swelling present in spermatic cord in groin region. External ring yet not incised.



Illustration 2: Separation of cord structure from swelling.

References

- [1]. Garriga V, A Serrano, A Martin, S Medrano, N Roson, X Pruna. US of tunica vaginalis testis : anatomic relationships and pathologic conditions. *Radio Graphics*, 2009 ; 29 : 2017-32
- [2]. Busigo J P, Eftekhari F. Encysted spermatic cord hydroceles : A report of three cases in adults and a review of literature. *Acta Radiol*. 2007 ; (48) : 1138-42
- [3]. Martin L C, Share J C, Peters C, Atala A. Hydrocele of the spermatic cord : embryology and ultrasonographic appearance. *Pediatr Radiol*. 1996 ; 26 (8) : 528-530.
- [4]. Rathaus V , Konen O , Shapiro M , Lazar L , Grunebaum M , Werner M . Ultrasound features of spermatic cord hydrocele in children. *Br J Radiol* 2001 ; 74 (885) : 818-820.
- [5]. Warner B W , *Pediatric surgery In : , Townsend C M , Beauchamp R D , Evers B M , Mattox K L , eds. Sabiston text book of Surgery : the biologic basis of modern surgical practice. 18th ed. Philadelphia , Pa : Saunders Elsevier , 2008 ; 2070*
- [6]. Elder J S . Disorders and anomalies of the scrotal contents. In : , Kliegman R M , Behrman R E , Jenson H B , Stanton B F , eds. *Nelson text book of pediatrics . 18th ed. Philadelphia , Pa : Saunders Elsevier , 2007 ; 2264.*