

CASE REPORT

Dermoid Cyst of the Spermatic Cord : a Rare Case of Benign Inguinal Lump

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ABSTRACT :

Dermoid cyst of the spermatic cord is an extremely rare pathological state seen at the general surgery and the urological clinic. We present a case of a 19-year old male who presented with a painless left groin lump, irreducible, and no cough impulse from childhood, both testes presented in the scrotum and normal in size and shape. From the history, physical examination, ultrasound examination, we thought it was a lipoma , a hydrocele of the spermatic cord, or irreducible inguinal hernia. During the operation , suspicion of a dermoid cyst of spermatic cord occurred from a sebum and hair which discharged from the cyst during dissection of the cyst from spermatic cord. The final histopathological analysis established the diagnosis of dermoid cyst of spermatic cord .

KEY WORDS:dermoid cyst , spermatic cord , inguinal hernia .

CASEREPORT :

A 19-year old male presented to our surgical clinic in Al-Karama Teaching Hospital with a history of painless swelling in the left groin which was present since childhood as small painless swelling and slightly increased in size with age but in the last eight months the swelling became larger and uncomfortable especially after he started training on weightlifting ,and there was no fever, no dysuria, no loss of weight ,no change in bowel habit. He is healthy

and does not have any other disease. He is the first boy in his family, has three sisters and all of them normal.

His father complains of hypertension, and there is no other significant family disease. He smokes about 15 cigarettes per day for the last 3 years. No previous history of medical or surgical disease.

On Physical Examination :

There is lump in the left supra-inguinal region

about (6 x 5 x 4) cm in size , the overlying skin look normal (no scar of previous operation , no distended veins). There was no cough impulse , no signs of strangulation or inflammation. Both testes were present in the scrotum with normal size and shape, his abdomen looked normal. On palpation, there was irreducible lump about (6 x 5 x 4) cm in size, hemispherical in shape, non-tender, normal temperature, well defined edges, smooth surface ,soft in consistency, slightly transilluminable ,not compressible, not pulsatile, and not fixed to the overlying skin . There was no bruit on auscultation and no regional lymphadenopathy . His abdomen was soft, non-tender, and there was no palpable intra-abdominal mass, hepatomegaly or splenomegaly.

Ultra-sound :

Ultra –sound showed the presence of a left groin mass consisting of large cystic lesion with internal echoes. These measures are (5.4 x 5 x 4) cm. There were no sonographic signs of malignancy. Both testes looked normal in size and shape .

Operation :

The patient operated in 16th of July 2012 , under general anesthesia, in supine position, left supra-inguinal incision was performed, large mass was noted at the superficial inguinal ring and adherent to spermatic cord with distended pampaniform plexus veins, vas difference was identified at the lower lateral surface of the mass.

Dissection has been done with separation of the mass from the vas difference and pampaniform plexus without incision of the external oblique aponeurosis, slight amount of white creamy material (sebum) and hair projected from the cyst during dissection(Fig. 1 &2).

The mass was completely removed, hemostasis secured, and subcutaneous tissue was sutured by absorbable suture and skin closed by non-absorbable suture .

The specimen was sent for histopathology.

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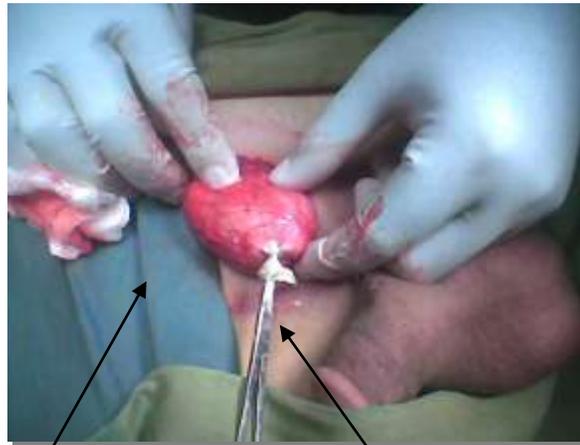


Fig. 1: Dermoid cyst of the spermatic cord delivered outside the inguinal wound.

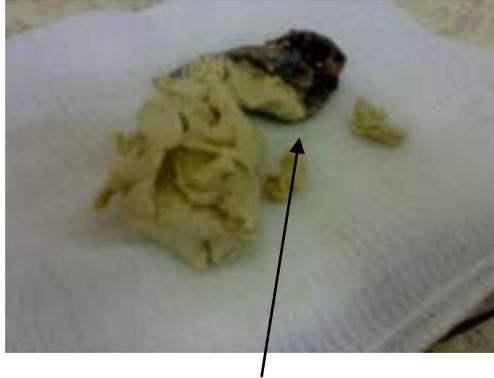


Fig. 2: Complete excision of the cyst.

Histopathological examination:

Gross exam :- One piece of tissue ,cystic like

measured 5 cm in diameter ,the cyst opened which shows sebum and hair (Fig. 3).



Sebum and hair

Fig. 3:The cyst opened; shows white creamy material (Sebum) and hair.

Microscopical exam:

Multiple histopathological sections show thin-walled cystic structures lined by mature keratinising squamous epithelium with hair follicle. The wall contained skin appendage

structures with both epocrine glands and sebaceous glands. There was no evidence for dysplasia or malignancy in the lining of the cyst.

The histological appearances suggested a dermoid cyst (Fig. 4, 5 &6).

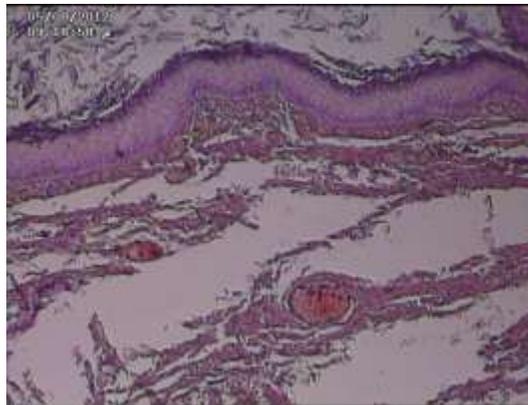


Fig. 4: Histopathological features suggestive of a dermoid cyst.



Fig. 5: Histopathological features show mature keratinized squamous epithelium with hair follicle, suggestive of a dermoid cyst.

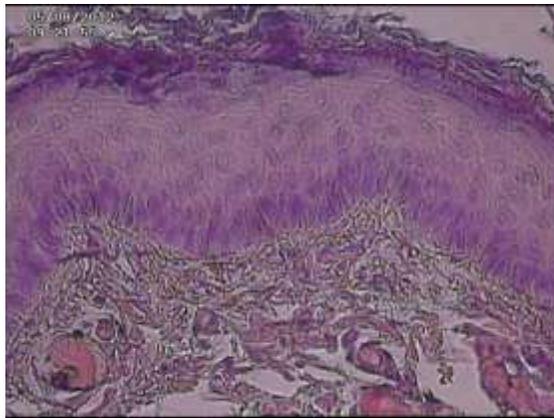


Fig. 6: Histopathological features suggestive of a dermoid cyst.

DISCUSSION:

The most common diagnosis of patients with groin swelling is an inguinal hernia, other causes of groin swellings include femoral hernias, hydrocoeles, undescended testis, enlarged femoral lymph nodes, lipoma of the cord, spermatocele, femoral artery aneurysm, saphena varix, varicocele. Rarer causes include inguinal endometriosis in women ⁽¹⁾.

(A dermoid cyst of the spermatic cord is an unusual cause of groin swelling, with 8 cases reported to date. ⁽²⁾. Articles from Canadian Urological Association Journal, 2009, august.

Another case in June 2010, from 2nd Department of Surgery, Army General Hospital, 19 Taxiarchon Str, 19014, Kapandriti, Athens, Greece.

Dermoid cyst of the spermatic cord is a very rare clinical entity with only a few cases reported in the literature so far. We herein describe an extremely

rare case of a large dermoid cyst of the spermatic cord measuring 8.5 x 5 x 5 cm in a young patient who presented with clinical manifestations of an incarcerated inguinal hernia. After the cyst excision, a diffuse direct hernia became apparent and a Lichtenstein polypropylene mesh repair was performed. Direct hernia was likely the result of chronic pressure on the inguinal floor maintained by the large cyst. We conclude that although very rare, dermoid cyst of the spermatic cord should be considered as a part of the differential diagnosis in patients presenting with an irreducible inguinal mass of a long course. ⁽³⁾.

Another case in Oct. 2010, from Department Paediatric Surgery, Complejo Hospitalario de Vigo(CHUVI), SERGAS, 36204 Vigo (Pontevedra),Spain.

Dermoid cysts of the spermatic cord are very rare, with only 9 clear cases reported in the literature to date, all of them in adults. We present a case of dermoid cyst of the spermatic cord in a 2-year old boy, the youngest patient reported so far. Dermoid cysts of the spermatic cord should be considered as part of the differential diagnosis of inguinal masses in children, especially in cases of long-standing, nontender, and irreducible inguinal mass.⁽⁴⁾

Therefore; we present the 10th case in adults and the 11th case reported to date.

Dermoid cysts are congenital lesions that result when epithelium is trapped during fetal midline closure⁽⁵⁾. Although the eyebrow (often near the lateral aspect of the eyebrow) is the most frequent site of presentation, dermoid cysts are common anywhere from the nasal tip to the forehead and behind the ear (postauricular dermoid cyst). Dermoid cysts can also be intracranial, intraspinal or perispinal. Intra-abdominal dermoid cysts can also occur on the ovary or omentum.

A dermoid cyst is a cystic teratoma that contains developmentally mature skin complete with hair follicles and sweat glands, sometimes clumps of long hair, and often pockets of sebum, blood, fat, bone, nails, teeth, eyes, cartilage, and thyroid tissue. Because it contains mature tissue, a dermoid cyst is almost always benign. The rare malignant dermoid cyst usually develop squamous cell carcinoma in adults; in babies and children it usually develops endodermal sinus tumor⁽⁶⁾.

Histologically the wall of a dermoid cyst consists of all components of the skin, including hair follicles, hair, sweat and sebaceous glands⁽⁷⁾.

Dermoid cysts demonstrate squamous epithelium, epocrine glands, and pilosebaceous units. Dermoid cysts of the spermatic cord are not thought to be painful⁽⁸⁾, though they have been known to mimic an incarcerated inguinal hernia⁽⁹⁾.¹⁰⁾ They have also been reported to occur in conjunction with an ipsilateral paratesticular epidermoid cyst⁽¹¹⁾.

In symptomatic cases, surgical excision remains the only treatment option.

CONCLUSION :

A dermoid cyst of the spermatic cord is a rare, benign cause of masses in the groin. The diagnosis may be suspected on ultrasound, but requires surgical excision and histopathological confirmation.

Dermoid cyst of the spermatic cord should be considered as a part of the differential diagnosis in

patients presenting with an irreducible inguinal mass, especially in cases of long-standing, nontender, and irreducible inguinal mass.

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