

DERMOID CYST OF INGUINAL REGION IN PEDIATRIC PATIENT

ABSTRACT

Introduction: Dermoid cyst in the inguinal region is a rare case and it mimics encysted hydrocele in the inguinal region. A dermoid cyst of the spermatic cord is an unusual cause of groin swelling, with 9 cases reported to date. In pediatric patients only one case was reported till date.

Case presentation: We present the case of a 6 year old boy with complaints of right sided inguinal swelling for 6 months. Postoperative histopathological examination confirmed the diagnosis of dermoid cyst.

Keywords: Dermoid cyst, inguinal swelling, pediatric swelling, Dermoid cyst in inguinal region

1. INTRODUCTION

Normally dermoid cyst is a type of tumour that contains a cyst filled with tissues that are normally found in the outer layers of the skin, including sweat glands and sebaceous glands. These may also contain elements of hair and teeth. Dermoid cysts can form anywhere in the body, but is usually seen in the ovary, testes, the skin over the head, neck, face or lower back, or in the central nervous system. Dermoid cyst is a benign swelling and tends to grow slowly. It presents at birth but may not appear until later in life. Dermoid cyst is a type of a germ cell tumour called a mature teratoma.

Most of the inguinal swellings in children are indirect hernias, but other pathologies may also be found. Other pathological conditions may mimic hernias, such as preperitoneal lipoma, supernumerary pectineus bursa, internal oblique muscle hematoma, angioma of the round ligament, pedunculated uterine fibroid, inguinal endometriosis, thrombophlebitis of the long saphenous vein, hydrocele, spermatocele, undescended testis, spermatic cord cyst, lymphangioma, lymphadenopathy, abscess and dermoid/epidermoid cyst. Dermoid cyst is a common developmental anomaly occurring along the embryonic fusion lines. Hence we are compiling the case of a dermoid cyst in the inguinal region in a paediatric patient.

2. CASE REPORT

Presenting the case of a 6 year old boy with complaints of right sided inguinal swelling since 6 months. The patient was admitted in our ward with a 6 months history of a swelling in the right inguinal region that increased in size gradually. The physical examination of the inguinal canal revealed a soft, mobile, non-tender, irreducible swelling with no cough impulse that is not fixed to the skin with the overlying skin appearing normal. On examination, the abdomen was soft



Figure 1 Pre operative right sided inguinal region swelling

and non-tender. There was no cough impulses in the inguinal region and both the testes were normal.

An ultrasound showed the presence of a right inguinal mass consisting of a large cystic lesion with multiple internal echoes within. This measured 3 x 2 cm in size. There were no signs reported sonographically suggestive of an underlying malignancy.

The patient underwent an exploratory laparotomy with the differential diagnosis of a

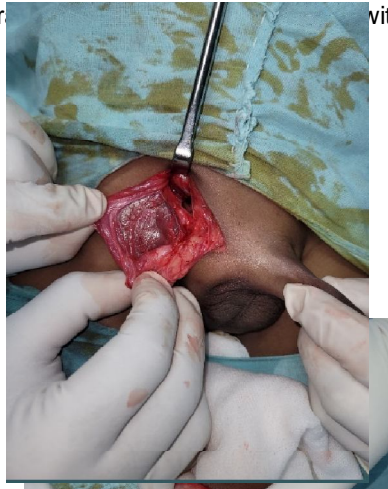


Figure 4 Intra operative image after excision of dermoid cyst



Figure 2 Intra operative image of the excised dermoid cyst with testis stump attached

lipoma or an encysted hydrocoele of the cord among others. Intraoperatively, we noted a small soft mass, within the inguinal canal. It appeared separate from the cord and appeared to contain fat globules.

On macroscopic examination, the mass was a creamish brown, solitary globular structure with smooth capsulated external surface, measuring about 3 x 2 x 1 cm in size and partially covered by skin. On cut section, sebum was present. Histopathological section showed a histology of well-defined wall lined by stratified squamous epithelium with mature skin appendages (hair follicles and sebaceous gland) and a lumen filled with keratin. There was no evidence of dysplasia or malignancy in the lining of the cyst. Thus histological appearance suggested a dermoid cyst.



Figure 5 Dermoid cyst after opening

3. DISCUSSION:

Patients with right sided groin swelling can present to the outpatient clinic. Though the most common diagnosis is an inguinal hernia, other causes of groin swellings include femoral hernias, hydrocoeles, undescended testes, enlarged lymph nodes, lipomas, femoral artery aneurysms, saphena varices, varicoceles etc. Rare causes include inguinal endometriosis in women and thrombophlebitis of the long saphenous vein. Usually most dermoid cysts occur during childhood before the age of 5 years but they can remain unnoticed until adulthood. A dermoid cyst in the inguinal region is an unusual cause of groin swelling, with 9 cases reported to date.

Dermoid is a term given to cysts lined by squamous epithelium occurring in various parts of the body. Dermoid cysts beneath the skin occur mostly on the face, neck or scalp. Dermoid cysts can also be intracranial, intraspinal or peri spinal. Intra-abdominal dermoid cysts can also occur in the ovary or omentum. Dermoid cysts occur when skin and skin structures become trapped during fetal development. Histogenetically, dermoid cysts are a result of the sequestration of skin along the lines of embryonic closure. Histologically the wall of a dermoid cyst consists of all the components of the skin, including hair follicles, sweat glands and sebaceous glands.

4. CONCLUSION

Dermoid cyst is a rare, benign cause of a mass in the groin. The diagnosis may be suspected on ultrasound, but requires surgical excision and histopathological confirmation.

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AUTHORS' CONTRIBUTIONS

All authors have contributed equally in the management and follow-up of the patient and in the compilation of this case report.

CONSENT

Consent has been taken from the patient.

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