



E-ISSN: 2616-3470

P-ISSN: 2616-3462

© Surgery Science

www.surgeryscience.com

2017; 1(1): 27-29

Received: 12-08-2017

Accepted: 14-09-2017

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## Dermoid of spermatic cord diagnostic dilemma

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### Abstract

Dermoid cyst of spermatic cord is extremely rare pathology. We present the case of 25 year old male who presented with a right groin lump, thought to be a hernia. The swelling was reducible and cough impulse was positive. There was a lump found close to the right groin apart from hernia. After dissection it was seen as protruding out superficial ring and was attached to the spermatic cord. The final histopathological analysis gave the diagnosis of a dermoid cyst.

**Keywords:** Hernia, Indirect sac, Spermatic cord, Inguino scrotal region, Dermoid

### Introduction

spermatic cord dermoid is an extremely rare pathology state seen at general surgery. There are benign and malignant masses can be seen, like hernia, hydrocele, varicocele, abscess etc. Any mass needs to be exploration<sup>[1]</sup>. Spermatic cord lesion can be due to causative factor like trauma or tumours<sup>[2]</sup>. hernia or any other inguino scrotal region swelling are difficult to differentiate from other causes on examination<sup>[3]</sup>. in our case patient present as indirect inguinal hernia with palpable lump in groin, on introperative we found lump attached to spermatic cord; with indirect sac also present.

### Case Report

A 25 year old man presented to our surgery opd with the history of a swelling in the inguinal region. He gives history of the swelling since 2 years which increases on standing and decreases by it's self on lying down, swelling also increases on coughing. There were no other co-morbidities. He was otherwise healthy with no history of any similar swelling in the past. On examination 4cm swelling was there in the right inguinal region, cough impulse were present and on deep ring occlusion test swelling did not appear medial to occluding finger that gave our diagnosis of indirect inguinal hernia. There was another similar palpable swelling in the root of the scrotum which is mobile, non-tender firm in consistency, skin over the swelling was normal; it was non-transilluminating, and non fluctuating. So depending on examination finding we thought it to be lipoma or a hydrocele of the cord. On abdominal examination, it was soft and non tender. Both testies were normal. Ultra sonogram showed presence of right groin mass consisting of cystic lesion measuring approximately 6\* 2.5 cm, and indirect sac was noted. No other features suggestive of any underline malignancy. Later, patient underwent exploration for inguinal hernia with exploration of spermatic cord with differential diagnosis of lipoma or encysted hydrocele of the cord. During surgery we noticed indirect sac and single firm mass on spermatic cord, of size measuring approx 4cm within the inguinal canal.



**Fig 1:** Intraoperative Photo of Cyst

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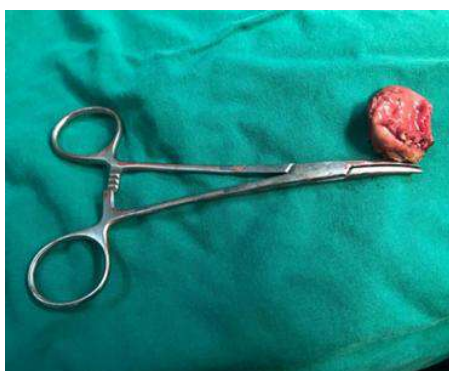
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**Fig 2: Cyst Opened Intraoperatively**



**Fig 3: In Toto Cyst Wall**



**Fig 4: Cyst Photo Post- Op**

On mass dissection it was easily separated from the cord. The mass were excised and sent for histopathological examination, we also found indirect sac was transfixed and mesh placement were done.

On histopathological examination diagnosis was given of "Dermoid Cyst". Section showed thin walled cystic structures lined keratinizing squamous epithelium. Sebaceous gland were also seen, there was no evidence of any malignancy. The surrounding fatty connective tissue contained no residual or atrophic testicular tissue. The patient had uneventful recovery.

HPE SUGGESTIVE OF A DERMOID CYST



## Discussion

patients with groin swelling, the first diagnosis would be inguinal hernia [4]. other causes of groin swelling includes hydrocele, femoral hernia, undescended testes, femoral lymph node, lipoma of cord, spermatocele, femoral artery aneurysm, sphenovarix, varicocele, thrombophlebitis of long saphenous vein [5]. Dermoid cyst of spermatic cord is a rare cause of groin swelling till now 11 cases reported to date [6]. We present a case of dermoid cyst of spermatic cord in a 25year old man. Dermoid cyst of spermatic cord should be considered as a part of differential diagnosis of inguinal masses [5, 6]. We present the first case in adult inguinal hernia with dermoid cyst in our hospital and 12<sup>th</sup> case reported to date. Dermoid is a term given to a cyst lined by squamous epithelium [7]. Dermoid cyst are congenital lesion that results when epithelium trapped during fetal midline closure. Dermoid cyst seen in nasal tip, forehead, behind the ear, intracranial, intraspinal, perispinal, intra abdominal, ovary, omentum, neck. Dermoid cyst are the sequestration of skin along the lines of embryonic closure. A dermoid cyst is teratoma that contains mature skin, hair follicles, sweat gland, long hair, pockets of sebum, blood, fat, bone, nails, teeth, eyes, cartilage, thyroid tissue. It is rarely malignant [8]. Histological a wall of cyst consist of all components of skin, hair, sweat and sebaceous gland, It also demonstrates squamous epithelium, epocrine glands, pilosebaceous unit. Dermoid cyst of spermatic cord are not thought to be painful [9].

Dermoid cyst are always benign lesions, in symptomatic cases surgical excision is the only treatment [10, 11]. No case of malignant transformation has been reported till date [12].

## Conclusion

Dermoid cyst is a rare in the groin. The diagnosis may be a dilemma. Groin dermoid cyst requires surgical excision and histopathological confirmation. Dermoid cyst of spermatic cord should be kept in mind as a part of the differential diagnosis.

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