Case Report

Hydrocele of canal of nuck: a case report

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INTRODUCTION

The failure of closure of parietal peritoneum in a female can result in a hydrocele or a hernia. Both present with a swelling in the inguinal region. This is analogous to a patent processus vaginalis in a male. Ultrasonography is accurate in coming to a diagnosis in almost all cases. Once diagnosis confirmed, the treatment of choice is surgical excision, with isolation of the cyst and closure of the peritoneal and fascial defect if any.

CASE REPORT

A 7 year old female presented to the outpatient department with history of slowly growing groin swelling on the right side since 1 year. There was a h/o size variation over the said period but no classical h/o reducibility. On examination there was a 5cm by 3cm right sided inguinal swelling, cystic in nature, nontender and transilluminant. There was no visible or palpable cough impulse. On sonography a cystic mass lying superficial and medial to the pubic was detected with no peritoneal communication and no change on valsalva. Patient subsequently underwent a surgical exploration for excision. The cystic swelling was identified and isolated.

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ABSTRACT

The part of the parietal peritoneum which accompanies the round ligament in a female, in the inguinal canal is called 'canal of nuck'. Failure of closure of the parietal peritoneum can result in a hernia or hydrocele. Hydrocele of canal of nuck is a rare entity with little said about it in literature. We present a case of a 7 year old female that presented with right sided inguinal swelling which after radiographic confirmation of diagnosis, was treated surgically.

Keywords: Hydrocele, Canal of nuck, Processus vaginalis

After confirming the absence of a hernia the hydrocele was excised and the proximal connection towards the deep ring was ligated. Wound was closed in layers and suture removed at 10 days post operatively. Post-operative follow up was uneventful without any evidence of recurrence at 3 months.
DISCUSSION

The canal of nuck is the portion of the processus vaginalis within the inguinal canal in women. A hydrocele of the canal of nuck is equivalent to an encysted hydrocele of the cord in men.1

Hydrocele of the canal of nuck is a seldom encountered entity in clinical practice and is commonly mistaken for inguinal hernia as one third of the cases of the former are concomitantly present with the latter.2,4

Tenderness on clinical presentation can point to a diagnosis of strangulated hernia or a reactive lymph node.5

Other variable differentials include Bartholin’s cyst, abscess, arterial and venous aneurysms and malignant and benign tumors.2

Clinically, hydrocele of the canal of nuck may present as a painless, translucent, fluctuating, nonreducible swelling in the inguinal area and labium majus.2,6,8 The age of presentation is also variable as literature reveals.1,9

Radiological confirmation can be done by ultrasonography or MRI. The usual sonography findings are an anechoic cystic structure, avascular on color doppler, arrow head appearance.10,11 Surgical exploration is the treatment of choice once diagnosis is confirmed in which the cyst containing clear fluid is isolated in the inguinal region and dissected out.12,13

CONCLUSION

This Hydrocele of Canal of Nuck though a rare entity should be considered as a differential for an inguinal lump in a female. Radiological confirmation of diagnosis after clinical suspicion can prevent any surprises encountered on the operation table. Diagnosis once confirmed, surgical excision is the treatment of choice with no major complications post operatively.

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