

Case Report

Hydrocele of canal of nuck: a case report

Samir Ushakant Rambhia*, Pallavi Ayyar

Department of Surgery, Lokamanya Tilak Medical College & General Hospital, Sion, Mumbai, Maharashtra, India

Received: 07 July 2015

Accepted: 26 July 2015

***Correspondence:**

Dr. Samir Ushakant Rambhia,

E-mail: samir.rambhia@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

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

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.

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.

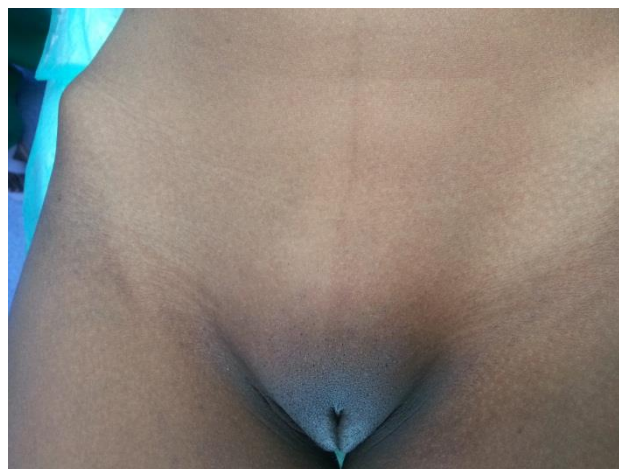


Figure 1: Right sided inguinal swelling (Pre-operative).



Figure 2: Canal of nuck hydrocele: intra operative picture.

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.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Caviezel A, Montet X, Schwartz J, Egger JF, Iselin CE. Female hydrocele: the cyst of Nuck. *Urol Int*. 2009;82(2):242-5.
2. Stickel WH, Manner M. Female hydrocele (cyst of the canal of Nuck). Sonographic appearance of a rare and little-known disorder. *J Ultrasound Med*. 2004;23:429-32.
3. Block RE. Hydrocele of the canal of Nuck: a report of five cases. *Obstet Gynecol*. 1975;45:464-6.
4. Schneider CA, Festa S, Spillert CR, Bruce CJ, Lazaro EJ. Hydrocele of the canal of Nuck. *NJ Med*. 1994;91:37-8.
5. Bunni J, Gillam M, Pope IM. Hydrocele of the canal of Nuck--an old problem revisited. *Front Med*. 2013 Dec;7(4):517-9.
6. Stickel WH, Manner M. Female hydrocele (cyst of the canal of Nuck): sonographic appearance of a rare and little-known disorder. *J Ultrasound Med*. 2004;23:429-32.
7. Anderson CC, Broadie TA, Mackey JE, Kopecky KK. Hydrocele of the canal Nuck: ultrasound appearance. *Am Surg*. 1995;61:959.
8. Collins S, Ortenberg J, Collins S. Hydrocoele and hernia in children, 2002. Available at: <http://www.emedicine.com/ped/topic1037.htm>. Accessed 18 May 2011.
9. Safak AA, Erdogmus B, Yazici B, Gokgoz AT. Hydrocele of the canal of Nuck: sonographic and MRI appearances. *J Clin Ultrasound*. 2007 Nov-Dec;35(9):531-2. Park SJ, Lee HK, Hong HS, Kim HC, Kim DH, Park JS, et al. Hydrocele of the canal of Nuck in a girl: ultrasound and MR appearance. *Br J Radiol*. 2004 Mar;77(915):243-4.
10. Jagdale R, Agrawal S, Chhabra S, Jewan SY. Hydrocele of the canal of Nuck: value of radiological diagnosis. *J Radiol Case Rep*. 2012 Jun;6(6):18-22.
11. Manjunatha Y, Beeregowda Y, Bhaskaran A. Hydrocele of the canal of Nuck: imaging findings. *Acta Radiol Short Rep*. 2012 Apr 23;1(3). pii: arsr.2012.110016.
12. Bhattacharjee PK, Ghosh G. Hydrocele of the canal of Nuck. *J Indian Med Assoc*. 2006 Mar;104(3):150-1.
13. Kucera PR, Glazer J. Hydrocele of the canal of Nuck. A report of four cases. *J Reprod Med*. 1985 May;30(5):439-42.

Cite this article as: Rambhia SU, Ayyar P. Hydrocele of canal of nuck: a case report. *Int Surg J* 2015;2:396-7.