

Bi-Lateral Hydrocele of Canal of Nuck – A Case Report



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INTRODUCTION:

- The canal of Nuck was first described by the Dutch anatomist Anton Nuck in 1691.
- The processus vaginalis within the inguinal canal in women is called the canal of Nuck.
- The Hydrocele of the canal of Nuck is a very rare condition and results from the failure of obliteration of the distal portion of the canal which forms a fluid containing sac.
- It is homologous to a patent processus vaginalis in males which also predispose to indirect inguinal hernias and hydroceles and cysts of the spermatic cord.
- Hydrocele of the canal of Nuck is a rare entity in clinical practice and is an unusual diagnosis with only about 400 reported cases.

PATHOPHYSIOLOGY:

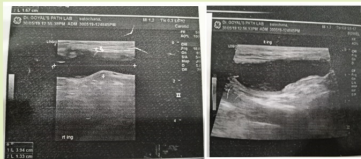
- When the secretion and absorption of fluid become unbalanced in the secretory membrane on the inner wall, hydrocele of the canal of Nuck occurs due to swelling of the pouch.
- The hypersecretion and malabsorption of the secretory membrane can be caused by infection, injury, or inappropriate lymphatic drainage, the latter of which is usually multiple.

CASE REPORT:

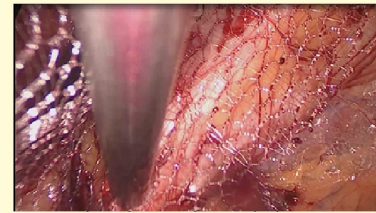
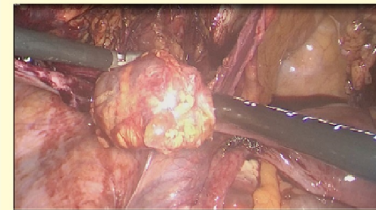
- A 42-year-old female presented with complaint of pain and swelling in bilateral inguinal region since 3 months. Swellings were insidious in onset, with a slight increase in the size of the swelling since its occurrence. There was no history of other GI or Urological symptoms
- On examination, an oval, approximately 2 × 2 cm in size, tender, cystic and fluctuant swelling was present in the right inguinal region and about 1.5x1 cm size in left inguinal region.
- It was also slightly tender and cystic. Trans-illumination test was negative.
- Swellings were irreducible against manual pressure. There was no expansible cough impulse, peristaltic activity or abnormal vascularity-associated with the swellings.
- Signs of inflammation were absent.
- Lymph nodal examination was normal.

INVESTIGATIONS:

USG Abdomen showed lobulated thick walled cystic lesions in B/L inguinal regions suggestive of Lymphangioma or Round Ligament cysts.



MRI showed lobulated tubular fluid signal intensity lesions in left pelvic inguino-labial and right inguino-labial regions extending along the round ligament suggestive of hydrocele of canal of Nuck / mesothelial cyst of the round ligament.



OPERATIVE PROCEDURE:

Open excision of the cyst of canal of Nuck has been the standard of care, however laparoscopic excision has been reported in the literature.

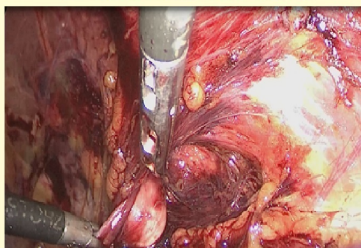


Laparoscopic excision of bilateral hydrocele of canal of Nuck was performed in this case and mesh was applied (TAPP)

LAPAROSCOPIC VIEW

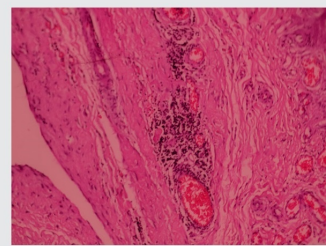


OPERATIVE PHOTOS:



HISTOPATHOLOGY:

Histopathology report showed loose connective tissue with mesothelial lining with mild chronic inflammatory infiltrate, congestion of blood vessels and fibrosis suggestive of B/L hydrocele of canal of nuck.



CONCLUSIONS

A hydrocele of the canal of nuck, although rare, it should be considered in the differential diagnosis in a case of inguino-labial swelling

The treatment of choice for hydrocele of canal of Nuck is complete surgical excision.

References

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