

## Isolated Encysted Hydrocele of Canal of Nuck in Labia Majora Masquerading as Bartholin Cyst

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DOI: <https://doi.org/10.36347/sjmcr.2025.v13i09.015>

| Received: 11.07.2025 | Accepted: 05.09.2025 | Published: 09.09.2025

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### Abstract

### Case Report

The Hydrocele of Canal of Nuck is a rare entity. Our female patient, aged 21 years presented in OPD for left-sided labial swelling. We operated her after radiological investigations. We want to present this case as it is a rare case of hydrocele of Canal of Nuck presenting as a swelling in labia majora and not as a groin swelling and can be confused with Bartholin's Cyst, lymph node, abscess.

**Keywords:** Encysted Hydrocele in Female, Labial Swelling, the Canal of Nuck, Bartholin's Cyst, Hydrocele of the Canal of Nuck.

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## INTRODUCTION

A female hydrocele, namely cyst of the canal of Nuck, is an extremely rare entity that is not commonly encountered, especially in adults [1, 2]. There is less awareness about this entity among the surgeons as well as gynaecologists. Usually the swelling presents as a groin or inguinal swelling extending to labia majora. But our patient had only labia majora swelling. There was no groin/inguinal swelling. We did literature search and we did not find isolated Hydrocele of canal of Nuck presenting in labia majora. Appropriate clinical examination and radiological studies are needed before excision of the lesion to prevent wrong diagnosis and correct diagnosis to guide us for appropriate surgical incision and procedure.

## CASE REPORT

21-year unmarried female, complaining of left side genital swelling since 4 years, insidious in onset as gradually increasing in size. Swelling was painless.

Swelling was noticed by patient herself but was neglected due to asymptomatic nature and due to social stigma. On examination swelling was pear shape left labia majora occluding perineum and urethral opening. (Fig. I) On palpation swelling was cystic in nature, compressible, not reducible, trans-luminant, can get above the swelling, no cough impulse was felt. Ultrasonography suggestive of well defined anechoic cystic lesion measuring 5.3\*2.5cm in labia majora. We decided to operate her under spinal anaesthesia. Intraoperative it was 20cc clear fluid filled cystic lesion attached with fibrous strand. Cyst was lying in deep layers of labia, a thin-walled cyst with serous fluid in it. (Fig. III) String like cord structure ligated at the base. Defect was primarily repaired using Monocryl 3-0, subcuticular sutures taken. On histopathological examination gross appearance of cyst was 2 x 2 x 0.5 cm. Extremely whitish irregular tissue. And microscopic picture shows fibro – collagenous wall lined by columnar epithelium which is stratified at places with dilated and congested blood vessels and areas of hemorrhage. Suggestive of BENIGN CYSTIC LESION.



**Fig. I: Clinical Photograph of Labia Majora swelling**



**Fig. II: High Resolution Sonography image**



**Fig. III: Intra-Operative Photo**

## DISCUSSION

The hydrocele of canal of nuck is rare disease in adult females. The pathologies are mostly encountered in young girls, less than five years of age. The incidence is even less in adults [3]. Presentation is of a non-painful swelling in the inguinal or inguino-labial swelling. The diagnosis can be done by clinical examination and

radiological examination. Our patient is 21 years old female and presented with painless swelling only in labia majora. No inguinal swelling or no cough impulse in inguinal region. Isolated labia majora swelling of hydrocele of canal of nuck is not found in literature as per our literature search.

Classification of hydrocele of the canal of Nuck has been described [4], as follows:

**Type 1:** An encysted hydrocele is a kind of cyst that develops as a consequence of partial obliteration of just the proximal portion of the canal of Nuck. Typical clinical presentation is a nonreducible, painless mass whose volume remains unchanged when the Valsalva maneuver is performed [5].

**Type 2:** A communicating hydrocele. This pathology occurs from the patency of the canal of Nuck. It appears as a non-tender reducible mass that may only arise after performing the Valsalva maneuver or standing.

**Type 3:** A combined type. The lesion has an encysted inferior section in the inguinal canal and labia majora, as well as an upper intraabdominal portion. The hydrocele is compressed by the deep inguinal ring, creating an hourglass appearance.

Radiological investigations are needed to come to an appropriate diagnosis. High resolution ultrasonography provides with proper diagnosis. A hydrocele of the canal of Nuck usually appears as a well-defined anechoic lesion with posterior acoustic enhancement (Fig II) [6, 7]. Magnetic resonance imaging (MRI) can be used for more complicated issues and additional investigation [8, 9]. Inguinal hydrocele of Nuck can be operated by open technique or by laparoscopy and hernioplasty is done. Our patient had an encysted swelling only in the labia majora, so only excision of intact complete sac was done.

## CONCLUSION

We want to present this isolated encysted hydrocele of canal of nuck in an adult female as it is not only rare, but we will like to emphasize on clinical examination and radiological examination to

reach to a proper diagnosis and prevent wrong diagnosis, or delay in diagnosis and to create an awareness about this entity.

**Acknowledgement:** Nil

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