

# Hydrocele

---

**40 yr old patient attended the OP with history of painless progressive swelling confined to left side scrotum of size 15 x 12cm, fluctuant and transluminant and testis not separately palpable.**

**a. What is the most probable diagnosis and the differential diagnosis?**

**b. How will you investigate and work up for the definitive treatment?**

**c. How will you treat this condition?**

Most probable diagnosis Vaginal hydrocele

Differential diagnosis

Hematoma testes

Pyocele

Chylocele

Testicular tumor

Epididymal cyst

# Hydrocele

An abnormal collection of serous fluid in a part of processes vaginalis, usually in the tunica vaginalis around the testis and occasionally along the spermatic cord.

**Primary or idiopathic**

**Secondary to epididymal or testicular  
disease**

1% adult male population

## **Pathophysiology**

Process vaginalis -diverticulum of the peritoneal cavity  
Descendants with the tests into scrotum At 28 weeks of  
gestation  
gradual closure through infancy childhood

## Types

1) communicating or congenital hydrocele

Patent process vaginalis communicates with peritoneal cavity  
associated with indirect inguinal hernia

2) Non communicating or vaginal hydrocele

processes vaginalis closed with no communication with peritoneal cavity.

Excessive production or defective absorption of fluid or both  
or disruption of the lymphatic drainage

Idiopathic non communicating hydrocele is primary hydrocele

3) Distal end of processus vaginalis close correctly

mid portion remains patent

The proximal end may be open and communicating with tunica vaginalis. Resulting in  
infantile hydrocele or hydrocele of the cord

## **Hydrocele fluid**

Amber colored

Specific gravity 1.022 to 1.024

Contains water,salts,albumin,fibrinogen, cholesterol and tyrosine crystals

When comes to contact with blood , clotting of fluid occurs due to fibrinogen activation

## **Secondary hydrocele**

above 40 Years of male

local injury trauma torsion infection

tumors radiotherapy

## **Clinical features**

Examination in standing and supine position

Get about the swelling +ve

Testis not separately palpable

Fluctuation+ve

translucent +ve

---

# Imaging

## Ultrasound

Other relevant Blood tests

ECG

Cxr

**Acute hydrocele in a young individual rule out  
testicular tumor**

Congenital hydrocele is an intermittent hydrocele.

Communicates with the peritoneal cavity

Opening too small

No hernia only fluid collection

Disappears on lying down

Recollects on standing up

## **Hydrocele of canal of nuck.**

This is in relation with round ligament partially within the inguinal Canal.

## **Complications**

Infection

Pyocele

Hematocele

Testicular atrophy

## Treatment

Surgery

Anaesthesia -SAB,  
EPIDURAL,GA,Local anaesthesia

## Congenital hydrocele - Herniotomy

### **other options**

- 1) Lord's plication -thin sac

Tunica is bunched by delayed absorbable sutures leading to fibrosis

- 1) Joubouley's procedure

Partial excision and eversion of the sac

- 1) In large hydrocele eversion of the sac behind the testes

- 1) In thick sac and large hydrocele, subtotal excision of the sac

---

After drainage corrugated rubber drain is put  
Wound closed on layers  
Scrotal bandage applied  
Drain removed after 24-48 hrs

## **Complications**

Reactionary bleeding

Infection

Pyocele

Recurrence

Sinus formation

Injury to spermatic cord and testis

# **Filarial hydrocele and chylocele due W.bancrofti infection.**

Previous repeated attacks of filarial epididymo orchitis.

Fluid contains liquid fat rich in cholesterol

The rupture of the lymphatic varix with discharge of chyle into hydrocele.

Treatment

aspiration and excision of the sac.