



Hydrocele

A hydrocele is a collection of serous fluid around the testicle. The fluid is contained within the tunica vaginalis.

Hydroceles need to be fully investigated in order to exclude an underlying cause.

*Glory is like a circle in the water,
Which never ceaseth to enlarge itself,
Till by broad spreading it disperse to nought*

WILLIAM SHAKESPEARE 1564 – 1616
HENRY VI PART 1 1590

Incidence

6% of newborn boys have a hydrocele. It is fairly common in adults. Hydroceles occur in an estimated 1% of adult males.

Age

Any age can be affected.

Sex

It is only found in males

Embryology

During normal foetal development the testicle descends down to the scrotum. A remnant of the peritoneum is dragged down with the testis. This forms the tunica vaginalis. Occasionally the tube remains patent resulting in a communicating hydrocele. This tube or remnant is called the processus vaginalis.



Hydrocele

Types

There are four varieties of hydrocele.

Patent processus vaginalis

In this type the hydrocele cavity connects with the peritoneal cavity

Infantile

The processus vaginalis is partially patent in the lower part so that the hydrocele extends up the spermatic cord. It does not communicate with the peritoneal cavity.

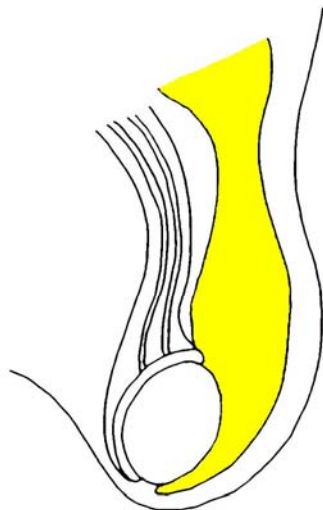
Vaginal

The fluid is only around the testicle. It is non communicating.

Hydrocele of the cord

This occurs as a cyst along the length of the processus vaginalis in the spermatic cord.

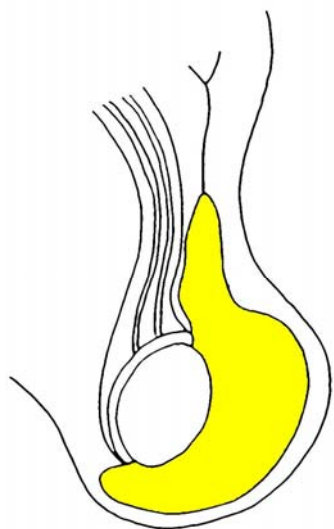
Types of hydrocele



Patent Processus



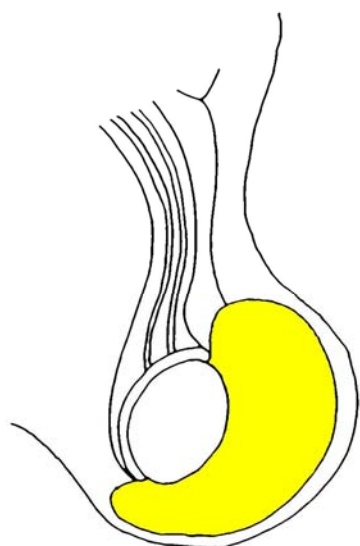
Hydrocele



Infantile



Hydrocele of the cord



Vaginal



Presentation

There is a scrotal enlargement which is cystic and non tender. The testis will only usually be palpable if the hydrocele is lax.

They are not usually painful. The swelling transilluminates (glows when a bright light is shone through it).

Differential Diagnosis

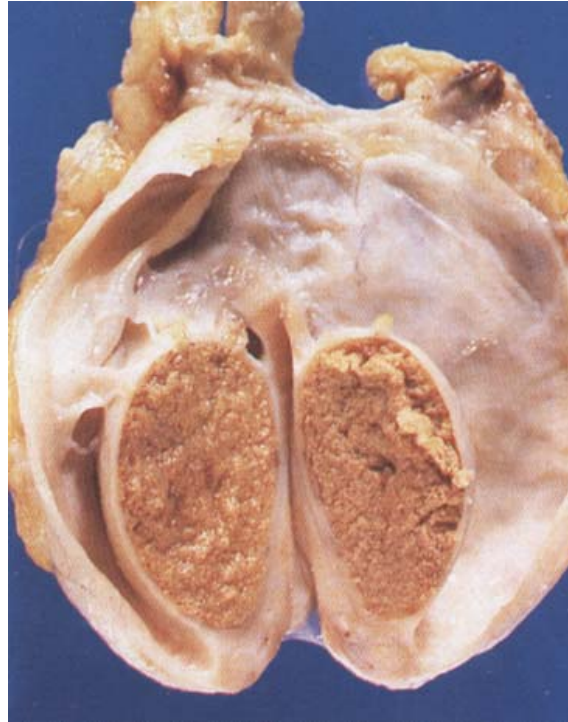
Most are idiopathic (no known cause identified).

They may be associated with

- Hernia
- Epididymo orchitis
- Testicular tumours
- Trauma

Investigations

If the testis is impalpable then an ultrasound scan is advisable. The ultrasound will identify any underlying cause for the hydrocele.



Vaginal Hydrocele

Treatment

Many of the hydroceles in the new born males will resolve spontaneously in the first year of life.

Tetracycline instillation into the tunica vaginalis after therapeutic drainage of the fluid will resolve some hydroceles.

Definitive operations are performed.

Jaboulay Repair

In this procedure the tunica vaginalis is opened and the fluid is drained completely. The testis and the epididymis are examined for underlying pathology. The Jaboulay repair is fashioned by inverting the tunica up around the spermatic cord. In principle the tunica will continue to produce fluid. The surrounding tissues such as the Dartos muscle now reabsorb that fluid so that it does not accumulate.

The prognosis from this operation is excellent if the hydrocele is idiopathic. The prognosis is otherwise dependent on the underlying cause.



[Lords procedure](#)

This operation is similar to the Jaboulay repair. In Lords procedure the tunica is concertinaed behind the testicle rather than inverting it up around the spermatic cord. The principles and the prognosis remain the same.

[Complications](#)

These include haematoma, bruising, infections and injury to the scrotal tissues or structures.

[Historical note](#)

Mathieu Jaboulay was born on July 3rd 1860 in Lyon France. In 1892 he introduced the side to side gastro duodenostomy. He performed the first human kidney transplant in 1906. He died in Paris on November 4th 1913.