

Hydrocele

A hydrocele is a collection of fluid around the testicle or along the spermatic cord leading to a non-tender fluid-filled (cystic) mass. This can occur in three main ways. Congenital hydroceles, or communicating hydroceles, occur in infants due to a patent processus vaginalis. Idiopathic hydroceles, or non-communicating ones, are seen mostly in adolescents due to dysregulated fluid reabsorption in the tunica vaginalis. Lastly, impaired lymphatic drainage is a common cause of acquired hydroceles, secondary to conditions such as filariasis or malignancy. A hydrocele can be visualized on exam with transillumination. Treatment consists of needle aspiration or surgery. In infants, surgery can often be delayed since most congenital hydroceles resolve spontaneously before two years of age. Patients will require scrotal support after treatment, and they should be monitored for bleeding or infection at the site after intervention.



PLAY PICMONIC

Mechanism

Impaired Lymphatic Drainage

Plugged Lymph-line Drain

A common cause of acquired hydroceles is impaired lymphatic drainage. This can occur secondary to many diseases, such as lymphatic filariasis in which damage to the lymphatic system results in an inability to reabsorb fluid from the tunica vaginalis. It can also be seen post-operatively or related to malignancy or infection.

Signs and Symptoms

Large Scrotum

Large Scrotum

Patients with hydrocele will present with a large scrotum, which can be transilluminated with a flashlight. This means that the mass can be seen when light is shined on the scrotum.

Painless

No Pain-bolts sign

Though there is enlargement of the scrotum, the mass is painless. A chronic, dull ache in the scrotal area may occur if the mass becomes too large.

Considerations

Needle Aspiration or Surgery

Needle Aspiration and Surgeon with Scalpel

Hydroceles can be aspirated through the scrotal skin, but this procedure is not done if there is suspicion of a tumor (may spread malignancy). If patients have recurring hydroceles or if they are children, surgical removal of the hydrocele is preferred. In infants, however, surgery can often be delayed as most congenital hydroceles resolve spontaneously before two years of age.

Scrotal Support

Supporting Scrotum with towel

Patients require scrotal support after treatment, and it is important to promote drainage and comfort following needle aspiration or surgery.

Monitor for Bleeding and Infection

Monitor with Bloody Bacteria

Occasionally, severe infection can be introduced to the scrotum after aspiration. Acute hemorrhage into the tunica vaginalis may also occur, so you should be aware of recurring scrotal swelling and tenderness.