Hydrocele 1

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Author Note

Hydrocele

Hydrocele refers to a swelling in the scrotum which occurs as a result fluid collection in the testicle’s thin sheath, which may manifest from several underlying diseases. The fluid collection may result from an imbalance of absorption and secretion within tunica vaginalis. A hydrocele is quite common among infants but usually gets cured without treatment with age. Older men can develop hydrocele due to an injury or inflammation within the scrotum. It usually happens when the channels from where the testicles stem have not properly closed, leading to fluid entering it, when the channels are re-opened. This causes fluid to enter into scrotum from the abdomen. The disease has various clinical manifestations and can cause psychosocial distress and discomfort (Dagur, et al., 2016).

Hydrocele can cause discomfort and heaviness in older patients from a swollen scrotum. The pain can increase if the inflammation size increases. The inflammation may vary at different times in a day. In adults, it can also be caused by a testicular infection or a coiled tube at the testicle's back. Moreover, it can also be caused by a tumor or an infection, in which case it can inhibit sperm function or production. It can also be caused by inguinal hernia, in which the intestinal loop that is trapped within the abdominal wall leads to complications which can at time life be threatening. It can also affect a patient’s individual life by impacting their sexual function, work capacity and overall life quality.

Hydrocele can be diagnosed through a combination of observations and tests, which include a patient’s physical exam and health history. The urologist may examine the scrotum for tenderness or carry out an ultrasound or other imaging tests. A physical exam may involve testing whether applying pressure leads to a bulge in the groin area, when the patient coughs. The scrotum may be examined by shining a light through it for any signs of fluid collection. In addition urine or blood tests are carried out to examine any underlying infections. Usually, hydroceles within adult patients can resolve within a few months without treatment. Usually, no drugs are prescribed apart from pain medication to alleviate discomfort. However, if it does not disappear then surgery is required to drain the hydrocele in case of an infection, large size or an increase in pain. It involves an incision within the lower abdomen or in the scrotum to remove the hydrocele.

Imaging methods to diagnose the presence of hydrocele involves a number of methods. A Duplex Doppler test is typically recommended to identify hydroceles that are non-palpable or have intrascrotal calcification. Ultrasonography is also used in case the hydrocele comes with tumors to prevent misdiagnosis. A multi-frequency 3D transducer can be used to detect a hydrocele and display it in a crescent-like shape. In case, there is a need to differentiate between diseases and scrotal masses. A Doppler ultrasonography can be used which can also be used to obtain real-time scans of the anatomy and any perfusion existing. In case of complex and difficult to diagnose cases, a Computer tomography (CT) scan is used for the purpose.

In the case of surgical treatment, noninvasive options involve examining the patient using a Duplex Doppler in the supine and upright position before sclerotherapy or aspiration is used for the treatment. In the case of invasive surgical treatment, hydrocelectomy is the primary surgical treatment method, which is useful especially when the hydrocele is persistent and large. It has a higher success rate but has a risk of leading to postoperative complications.

What I learnt about hydrocele is that it is a serious condition, whether present in older patient or infants, and requires that the patient be closely monitored. Secondary complications may significantly impact a patient's quality of life, and in some cases become life-threatening. Therefore early diagnosis is recommended before further complications develop.

# References

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