

HYDROCELE

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A hydrocele is an abnormal accumulation of fluid within the processus vaginalis in the scrotum or inguinal canal due to incomplete or delayed closure of the processus vaginalis. These are commonly occur in infancy with a secondary peak in adolescent boys, and the majority are asymptomatic. Hydrocele is one of the most common reasons for admission or referral to the pediatric surgery outpatient clinics. Although the exact incidence is unknown, it has been reported to occur between 0.7% and 4.7% of male infants in various series. Hydroceles frequently occur bilaterally and incidence is higher on the right side. This can be attributed to delayed descent of the right testis as in indirect inguinal hernias (1-4).

Congenital hydrocele may be communicating or noncommunicating. The communicating type responsible for the most pediatric hydroceles results from incomplete obliteration of the processus vaginalis and its continuing connection with the peritoneum through this patent processus vaginalis (Fig. 1A). In non-communicating hydroceles, the processus vaginalis becomes completely obliterated in the internal inguinal ring (Fig. 1B). Hydrocele of the cord is a cystic structure located between the internal inguinal ring and scrotum, formed by the accumulation of fluid as a result of obliteration of both the peritoneal and scrotum sides of the processus vaginalis (Fig. 1C). Differentiating a hydrocele of the cord, which is a mobile mass in the inguinal canal, from an incarcerated inguinal hernia can sometimes be difficult. In addition, abdominoscrotal hydrocele, a rare entity that extends from the inguinal canal to the retroperitone-

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% of whom were operated. In a more recent retrospective study, although the rate of resolution decreases as the age of admission increases, it was observed that 33.3% of the patients who applied over the age of 2 had resolution in their follow-up (1, 6, 7).

According to a survey conducted by the American Academy of Pediatrics Section on Surgery, surgeons more often prefer surgery at the age of 1 year. In the United Kingdom, the most preferred age range for surgery is between 24 and 36 months. Additionally, both the International Pediatric Endosurgery Group and the European Society of Pediatric Urologists recommended that hydroceles that do not resolve spontaneously be repaired at the age of 2 years. However, there is no definitive data on when a spontaneously unresolved hydrocele should be operated on, and recently debatable. Currently, waiting until at least 2 years of age may be appropriate to decide on the surgery by informing parents about inguinal hernias that may occur (3, 8, 9).

Patients, whose hydrocele does not resolve, should be operated on. Since most of the congenital hydroceles are of the communicating type, the patent processus vaginalis should be highly ligated in the internal inguinal ring by inguinal exploration and fenestration should be performed by draining the distal fluid accumulation. Even though transscrotal hydrocelectomy is considered appropriate for adolescent hydroceles in the absence of signs of PPV or tumor, inguinal exploration is a more accurate approach to avoid missing hernia or PPV. It is not necessary to suture the edges of the hydrocele sac as in the adult. Recurrence is rare and usually resolves spontaneously.

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