



Hydrocele of the Canal of Nuck

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Case report description

A 31-year-old woman presented to the Surgery Department with a complaint of painless swelling in her right groin that had first appeared 6 months previously and had grown in size since then. The swelling in the right groin protruded in the standing position and disappeared in the lying position, with one approximate size of 4,5 x 3,0 x 1,5 cm. The physical examination revealed a palpable cystic mass at the transition from the inguinal region to the right vulva painlessly and without signs of inflammation. The vital signs were all within normal limits. Laboratory tests were within normal limits. As a complement to the diagnostic investigation, the patient underwent ultrasound and subsequently magnetic resonance imaging (Figure 1 e3).



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The canal of Nuck is a small evagination of the parietal peritoneum, which is attached to the uterus by the round ligament through the internal inguinal ring into the inguinal canal. This structure is homologous to the processus vaginalis of the male anatomy [1]. Although the canal of Nuck normally disappears without a trace in the first year of life, it can cause an indirect inguinal hernia or hydrocele of the canal of Nuck when, in rare cases, it does not disappear completely. Hydrocele of the canal of Nuck is a rare disease that occurs in the inguinal area or labium as a painless edema before adolescence [2]. Ultrasound is the preferred modality for initial imaging of canal of Nuck disorders [3]. Can visualize herniated structures in the canal of Nuck moving when the patient stands up or performs the Valsalva maneuver [3]. The sonographic appearance of hydrocele of the canal of Nuck shows thin walled, well defined, echo free, cystic structure varying from an anechoic, tubular, dumbbell or comma-shaped, cyst within a cyst to a multicystic appearance [4]. Abdominal magnetic resonance imaging is used may provide more details of the herniated structures, in cases where the diagnosis is suspicious, to determine things such as intra abdominal extension of the mass, association with other organs, and the precise anatomy around the cystic mass. The treatment of Nuck canale hydroceles are surgery (Figure 3). Ligating the processus vaginalis and excision of the cyst in surgical treatment will prevent recurrences.

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