Conservative Management of Scrotal Hematoma Secondary to Adrenal Hemorrhage in Newborns

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A 24-hour-old male presented with bruising and swelling of the right hemiscrotum and groin. Testicular torsion was ruled out in a Doppler sonography, signs of an evolving right adrenal hemorrhage was demonstrated in the abdominal ultrasound. The imaging follow-up proved the disappearance of both scrotal and adrenal hematomas. Including the adrenal hemorrhage of the newborn in the differential diagnosis of an acute scrotum can prevent unnecessary surgical explorations. UROLOGY 133: e1–e2, 2019. © 2019 Elsevier Inc.

A 24-hour-old male born at term by vaginal delivery and weighing 3350 g presented with bruising of the right hemiscrotum and groin (Fig. 1). Testicular torsion was ruled out in a Doppler-sonography, identifying a structure compatible with a hematocele (Fig. 2). The abdominal ultrasound showed an evolving right adrenal hemorrhage visualized as a diffuse enlargement of the gland, an absence of differentiation between its cortex and medulla, and an avascular anechoic focal area (Fig. 3). The hemogram results were; hemoglobin 16 g/dL, hematocrit 44%, white blood cells 11.390/mm^3, and platelets 273.000/mm^3. The biochemistry revealed total bilirubin 10.7 mg/dL, and direct bilirubin 0.43 mg/dL. Prothrombin time and activated partial thromboplastin time were normal.

The imaging follow-up demonstrated the disappearance of both scrotal and adrenal hematomas after 5 months, avoiding a surgical exploration.

Adrenal hemorrhage is an infrequent entity in the neonatal period, it occurs in 0.2% of newborns and between 0.05% and 0.14% of neonatal autopsies, 10% of cases are bilateral.[1-6] It has been associated with trauma at birth, septicemia, extracorporeal membrane oxygenation, high weight, and a complicated neonatal course due to hypoxia, asphyxia, hypotension, or coagulopathy. Nevertheless, it can also appear spontaneously,[7-11] as in our patient. Clinical presentation can range from asymptomatic to adrenal insufficiency. Scrotal hematoma is a rare manifestation of neonatal adrenal hemorrhage, however, adrenal hemorrhage is one of the most common causes of scrotal hematoma in newborns. If the capsule of the adrenal gland suffers a disruption, the blood can reach the scrotum by a patent processus vaginalis or dissecting the retroperitoneum.[1,2,8]

Figure 1. Bruising and swelling of the right hemiscrotum and groin.

Some possibilities to consider in testicular ecchymosis cases are hemorrhagic disease of the newborn, sepsis with disseminated intravascular coagulation, perforated necrotizing enterocolitis, liver injury, and spleen injury.[12,13] A conservative management is possible when the abdominal ultrasound determines the etiology of the bleeding[14] and the Doppler-ultrasonography excludes a testicular torsion.[15,16]

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Figure 2. Right testicle ultrasound showing a heterogeneous and mobile structure compatible with hematocele.

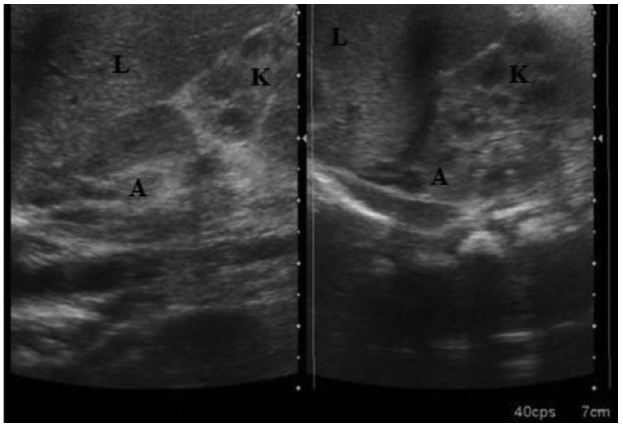

Figure 3. Abdominal ultrasound showing signs of an evolving right adrenal hemorrhage (L: liver, K: kidney, A: adrenal gland).

As a conclusion, including adrenal hematoma in the differential diagnosis of an acute scrotum can prevent unnecessary invasive procedures.

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