

Scrotal Hematoma Caused by Neonatal Bilateral Adrenal Hemorrhage: A Case Report

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ABSTRACT

Background: A very uncommon manifestation of newborn adrenal hemorrhage is scrotal hematoma, it can mimicking event of acute scrotum. To our knowledge, there is no published large-scale clinical trial on neonatal scrotal hematoma caused by an adrenal hemorrhage. This is the first case of neonatal scrotal hematoma caused by an adrenal hemorrhage described in Iraq. We aimed to present a newborn diagnosed with adrenal hemorrhage presenting as a scrotal hematoma, based on history, clinical examination, lab tests, and colour Doppler sonography of both the testicles and the abdomen.

Case report: We present a term male, with left scrotal swelling and red discoloration were noted six days after delivery. An enlarged and bluish-discolored left hemiscrotum was detected throughout a physical examination. A left scrotal complicated haematoma was detected by an emergency scrotal ultrasonography. Bilateral adrenal hemorrhages were detected via abdominal ultrasonography. The diagnosis of a left scrotal hematoma due to bilateral adrenal haemorrhage was considered, and nonoperative therapy was chosen as the course of treatment. After two months, the hematoma had resolved.

Conclusion: One of the possible differential diagnoses for acute scrotum and a cause of misdiagnosis is scrotal hematoma brought on by newborn adrenal hemorrhage.

Keywords: Adrenal haemorrhage, Newborns, Scrotal hematoma

Introduction

In newborns, adrenal hemorrhage is a unique occurrence that impacts in about 0.2% of neonates. Adrenal hemorrhage is frequently observed in newborn males, 10% of cases occur bilaterally (1). Scrotal hematoma is an extremely unusual newborn adrenal hemorrhage presentation, it can be mimicking event of acute scrotum and leading to misdiagnosis(2). In 1989, the first case neonatal adrenal haemorrhage related with scrotal hematoma was reported by Putnam, Few other cases have been documented in the literature(3).

To our knowledge, there is no published large-scale clinical trial on Scrotal hematoma caused by newborn adrenal hemorrhage, there are few cases were published in the literatures. This is the first case described a neonatal adrenal hemorrhage that appeared as a scrotal hematoma in Iraq.

We aimed to present a newborn diagnosed with adrenal hemorrhage presenting as a scrotal hematoma, based on history, clinical examination, lab tests, and colour Doppler sonography of both the testicles and the abdomen.

Case report

A 3kg, term male, after a challenging normal vaginal delivery complicated by evidence of hypoxic ischaemic insult, required admission to the neonatal care unit. Left scrotal enlargement and discolouration (Figure 1) were noted six days after birth, associated with jaundice, and hematuria. There was no history of trauma. Upon physical examination, the left hemiscrotum was larger and had a bluish discoloration. An examination of the abdomen was normal. The enlargement prevented the left testicle from being

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Figure 1: Left scrotal swelling and discoloration

palpated separately. The testicular enlargement did not transilluminate.

The primary finding was acute scrotum. Emergency scrotal imaging revealed a moderate left scrotal complex haematoma with both

testicles showed normal positions and sizes, vascularity, and echogenicity (Figure 2). Ultrasound of the abdomen discovered bilateral suprarenal complicated cystic masses, showing thick walls with few septae; measuring 6 cm and 3cm on the left and right side respectively; finding suggestive of bilateral adrenal haemorrhage (Figure 3).

Hemoglobin levels were 15 g/dl, white blood cell counts were 21,000/mm³, and the coagulation profile and platelet count were also within normal ranges.

A bilateral adrenal hemorrhage-related diagnosis of a left scrotal hematoma was entertained and nonoperative management was the preferred course of action. He was monitored clinically and radiologically. Serial ultrasonography demonstrated a considerable reduction in the rate of hemorrhage in both the testis and the adrenal gland, which completely resolved after two months. The baby is currently 4 months old and has healthy testicles and adrenal glands.

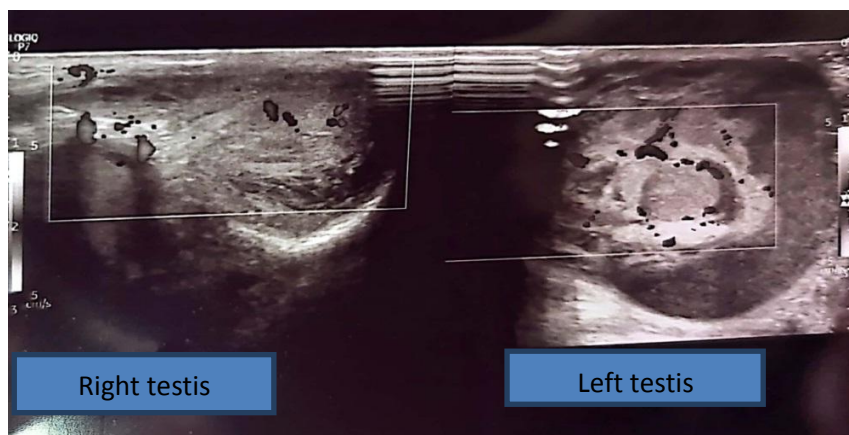


Figure 2. Left scrotal haematoma with testicles were normal in their vascularity



Figure 3. Abdominal ultrasound revealed bilateral adrenal haemorrhage

Discussion

The main risk factors of the adrenal hemorrhage was unknown, it can be associated with traumatic delivery, large birth weight, or neonatal conditions such as hypoxia, hypotension, hemorrhagic coagulopathy, as well as spontaneous adrenal hemorrhage(4).

Neonatal adrenal hemorrhage manifested in various ways and varied according to the amount of blood loss. It is possible for an adrenal hemorrhage to rupture into the intraperitoneal cavity or retroperitoneal area in considerable amounts. the spread of the blood to the inguinoscrotal area through the tissue of the retroperitoneum or by patent processus vaginalis (5).

Adrenal hemorrhage can present as jaundice, persistent anemia, hypotension, and abdominal mass, hematuria besides inguinoscrotal hematocele (6).

Neonatal acute scrotum can resulting from a variety of reasons such as testicular torsion, epididymo-orchitis, testicular trauma, and scrotal edema, scrotal hematocele is a rare entity, any of the aforementioned illnesses can be misinterpreted with an adrenal hemorrhage (7).

To our knowledge, only 29 cases of scrotal hematocele resulting from adrenal hemorrhage have been reported in the literature, but 9 of these received.

Unnecessary surgical operation. Therefore, it is mandatory to differentiate between scrotal hematocele resulting from adrenal hemorrhage and other reasons of neonatal acute scrotum to avoid unnecessary surgical exploration(4).

It is important to look for intra-abdominal disease in babies who have bluish coloring and scrotal hematomas, including intraperitoneal or retroperitoneal bleeding. Detailed history, physical examination, laboratory tests, and, especially, colour Doppler sonographical imaging of both the testicles and the abdomen are of fundamental importance to avoid unnecessary surgical intervention(7).

In our case, sonographic imaging of the scrotum showed a moderate left scrotal complex haematoma with both testicles were normal in their positions, sizes, vascularity, and echogenicity. The results of an abdominal ultrasound revealed bilateral suprarenal complicated cystic masses; measuring 6 cm and 3cm on the left and right side respectively; finding suggestive of bilateral adrenal haemorrhage.

Neonatal adrenal hemorrhage was typically self-

limited. It is advised to use a conservative approach and schedule follow-up exams. The majority of patients have a favourable prognosis and will be fully resolved in three to six months (8).

Conclusion

One of the possible differential diagnoses for acute scrotum and a cause of misdiagnosis is scrotal hematoma brought on by newborn adrenal hemorrhage. Abdominal and scrotal ultrasonography in neonatal scrotal hematoma is necessary to achieve the final diagnosis.

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Conflicts of interest

None declared.

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