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Case Report

NEONATAL ADRENAL HAEMORRHAGE PRESENTING AS SCROTAL HAEMATOMA - CASE REPORT

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ABSTRACT
A neonate with right adrenal haemorrhage (AH) who presented with scrotal haematoma is described. The child was anaemic and jaundiced but was haemodynamically stable. Right AH was proved by ultrasonography and CT scan. He was managed conservatively. The implication of scrotal haematoma in AH is emphasized.

Key Words*: Neonate, Adrenal Haemorrhage, Scrotal Haematoma*

INTRODUCTION
Adrenal hemorrhage (AH) is a relatively common condition in the neonatal period. Almost 70% of neonatal AH present as an abdominal mass, jaundice, anaemia and microscopic haematuria (Black and Williams, 1973). It may be asymptomatic. We report a case of neonatal AH with a rare presentation of scrotal haematoma.

CASES
A 7-day-old male neonate, weighing 3.3 kg., born at term with history of difficult delivery presented to us with dark purple discolouration of the scrotum and jaundice. On examination the neonate had an icterus, right scrotal haematoma and a firm mass on the right side of the abdomen. Both testes were normal on palpation and nontender. There was no haemodynamic instability. Ultrasonography (USG) of the abdomen revealed a well defined suprarenal mass, measuring 3 x 3 cm, with a central hypoechoic region, consistent with hemorrhage. Serum bilirubin was 11.4 mg/dl, haemoglobin-12 mg/dl, coagulation profile (PT, PTTK) and platelet counts were normal. Computed tomography of the abdomen identified a well defined right suprarenal mass suggestive of haemorrhage (Figure 1). The neonate was managed conservatively. He remained stable except for a minor rise in bilirubin. He was discharged in a stable condition after one week. On follow up, the abdominal mass had resolved completely.

DISCUSSION
Adrenal hemorrhage (AH) occurs in neonates as a result of a variety of stresses due to its large size and vascularity. This condition has been reported in 1.4 per 1000 neonatal autopsies (Desa and Nicholls, 1972). Neonatal AH affects the right side more commonly than the left side, bilateral being 10-15% cases (Mittelstaedt *et al.*, 1979).

Massive AH tends to occur in large for date neonates or preterm neonates after perinatal asphyxia. Thrombocytopenia due to sepsis may be a contributing factor.

The right adrenal gland is more commonly affected, as the right adrenal vein opens directly into the inferior vena cava exposing it to higher venous pressures which may occur during birth compression or as a result of asphyxia (Heij *et al.*, 1989).

Massive retroperitoneal bleed may cause abdominal distension, hypovolumic shock and adrenal crisis. Retroperitoneal bleed may extend down the patent processus vaginalis into the scrotum, manifesting as scrotal ecchymosis and may be erroneously diagnosed as testicular torsion (Kirby and Davidson, 2000; Giacoia and Cravens, 1990). USG helps differentiate these two conditions.

Diagnosis of neonatal AH may at times be challenging. Abdominal ultrasonography is the initial method of choice and also for follow up (Nordshus and Monn, 1980). It may show a mass around the adrenal gland, of varying degree of echogenicity. CT scan is another sensitive modality.

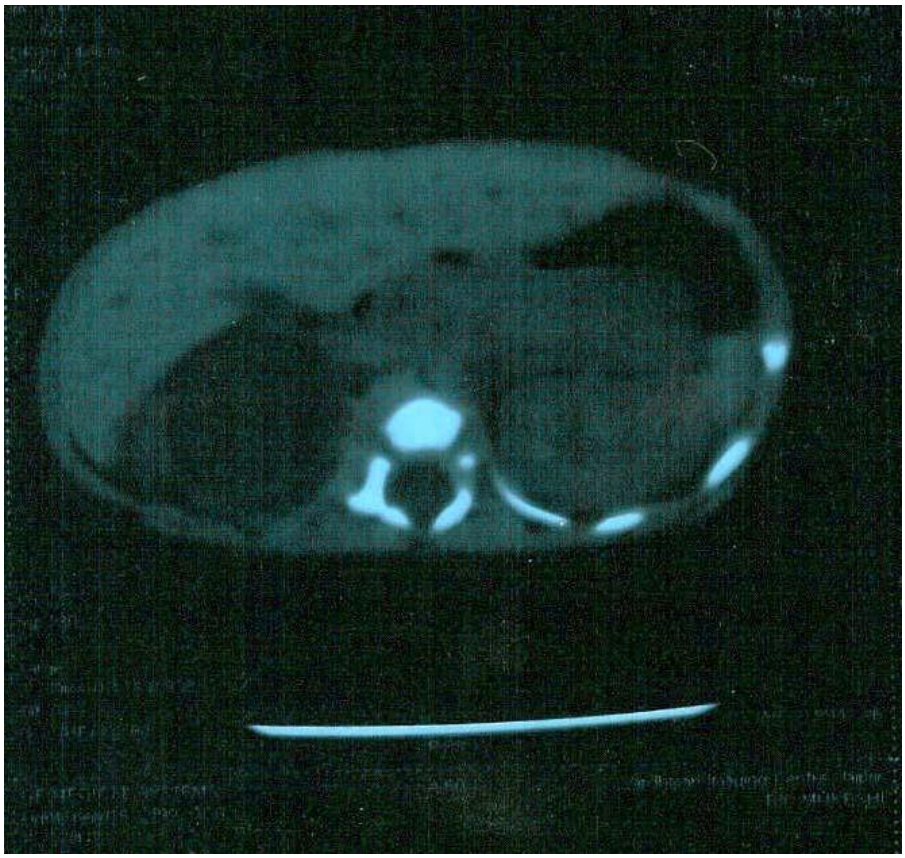

Figure 1: CT Scan of the abdomen showing right adrenal haemorrhage

Most cases of neonatal AH can be managed nonoperatively with good outcomes, although surgical intervention is required in cases of uncontrolled bleeding, after haemodynamic resuscitation.
Special attention to be given to keep the AH sterile, otherwise infection and abscess may occur (Debnath *et al.*, 2005). To conclude, authors advise for special vigil for AH whenever in case of scrotal haemotoma in a neonate to be dealt with.

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