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IMAGES IN NEONATAL MEDICINE.....

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Greenish liver visible through abdomen in neonatal cholestasis

A boy was born at 36 weeks of gestation and weighed 1500 g. He needed bag-and-mask ventilation for 3 min at birth. On day 3 of life, he developed features of necrotising enterocolitis (Bell's disease, stage 2). He was given antibiotics, 10% glucose and amino acid infusion (Astymmin 3; Tablets India, Chennai, Tamil Nadu, India) intravenously. Blood culture showed no bacterial growth. The baby showed improvement over the next 1 week. Oral feeding was started on day 10 of life, with expressed breast milk. The baby developed icterus on day 15. Interestingly, we observed a greenish hue in the right hypochondrium corresponding to the liver (fig 1). The liver measured 4 cm below the costal margin. Total serum bilirubin concentration was 227.4 $\mu\text{mol/l}$, with a direct fraction of 205.2 $\mu\text{mol/l}$. It increased subsequently to 424.08 $\mu\text{mol/l}$, with a direct fraction of 383.04 $\mu\text{mol/l}$ on day 19 of life. Concentrations of alkaline phosphatase, aspartate aminotransferase and alanine aminotransferase were 517, 146 and 70 IU/l, respectively. Ultrasonography of the hepatobiliary system showed hepatomegaly of 7.5 cm. No evidence of subcapsular haematoma or other abnormality was found. Discontinuation of amino acid infusion was followed by resolution of icterus and fading of the greenish hue over the next 2 weeks.

To our knowledge, greenish liver visible through the abdomen has not been reported earlier. It seems that severe cholestasis imparted a greenish colour to the liver, which became apparent because of the thin abdominal wall. The cause of cholestasis in this baby was probably the amino acid preparation we used, which was not specially formulated for newborns. The use of such preparations should be avoided in the neonatal period.

Figure 1 Greenish liver visible through the abdomen.

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