

CASE REPORT

Unusual complication of a central venous line in a neonate

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The placement of a central venous line in a low birthweight neonate led to a complication that highlights the need for continued vigilance after the position of the line is checked and thought satisfactory.

A 770 g, 26 week gestation white boy was born to a 28 year old woman by emergency caesarean section. A silastic long line was placed on day 9 of life through the right antecubital fossa because of suspected necrotising enterocolitis. The line tip was judged to be at the junction of the superior vena cava and right atrium on a chest radiograph without contrast. Subsequently necrotising enterocolitis was thought to be unlikely, and the sepsis thought to be secondary to an area of cellulitis in the right flank.

Because of recurrent abdominal distension and feed intolerance, an abdominal ultrasound scan, computed tomography scan, and contrast enema were performed, which showed considerable ascites with a large right sided fluid collection adjacent to the inferior edge of the liver and enveloping the right kidney.

Acute deterioration followed, and an emergency laparotomy was performed. Fluid was drained from the peritoneal cavity, and a Malecot catheter inserted into the retroperitoneal mass, which initially drained clear yellow fluid.

When milk was started, the drain passed large volumes of white fluid which was thought to be chyle. When tested, the putative chyle was identified as parenteral nutrition. A contrast linogram showed the line entering the retroperitoneal collection with drainage out of the Malecot catheter (fig 1). When the silastic line was removed, the effluent resolved.

DISCUSSION

This case highlights the need for radio-opaque contrast examination to accurately determine central line position in neonates.



Figure 1 A contrast linogram showing a retroperitoneal collection of total parenteral nutrition adjacent to the inferior edge of the liver and enveloping the right kidney. This was secondary to erosion by an intravenous catheter.

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