A 5-year-old boy presented with progressively increasing abdominal distension since birth with no associated urinary or gastrointestinal symptoms. A large, non-tender, soft, cystic intra-abdominal lump occupying almost the whole abdomen could be palpated (figure 1). Other systemic examination and all blood tests were normal.

A contrast-enhanced CT scan revealed a large complex cystic mass of size 185 × 148 × 300 mm occupying almost the entire left side of the abdomen and extending to the right side. The spleen, left kidney and pancreas could not be separately visualised. The stomach and gut loops were compressed to the right. The mass was predominantly fluid (figure 2).

On laparotomy, the left kidney was grossly hydronephrotic with papery thin renal parenchyma containing >5 litres of haemorrhagic fluid, and there was obvious narrowing at the pelviureteric junction. Left-sided nephroureterectomy was performed. The child recovered uneventfully after surgery and is doing well on follow-up.

Giant hydronephrosis has been defined in adults as the renal pelvis containing >1 litre of urine or >1.6% of the total body weight. In children, the range varies from 4% of total body weight at birth to 2% at puberty. The definition of giant hydronephrosis includes the kidney (1) occupying more than half of the abdomen, (2) meeting or crossing the midline and (3) being about five vertebral bodies in length.

The causes of giant hydronephrosis include congenital obstruction of the pelviureteric junction in nearly 80% of cases in children and adults, followed by obstruction of the ureterovesical junction. Other causes include obstructive megaureter, ureteric atresia, polar or aberrant vessels, flap-like mucosal folds and impacted ureteric stone, albeit rarely.

Although hydronephrosis is commonly seen in children, the incidence of giant hydronephrosis is rare.

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REFERENCES
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