A 59-year-old man presented to the emergency team with abdominal pain and gross abdominal distension. His history was unremarkable with no previous liver disease or alcohol excess. Clinical examination suggested gross ascites but no signs of liver disease. Abdominal x-ray suggested ascites (figure 1). Routine blood investigations were unremarkable. Clinically, the patient appeared to have large volume tense ascites with no obvious underlying cause. Before drainage, ultrasound and contrast CT scan of the abdomen were performed which revealed a massive (37×35×21 cm) clear fluid filled cyst extending from the xiphisternum to the symphysis, arising the large bowel mesentery and displacing the left kidney inferiorly as it extended in the retroperitoneum over the left adrenal gland (figures 2–4). We proceeded with a laparotomy through a midline incision. A large cyst was identified in the sigmoid mesentery with gross distortion of the normal anatomy.
The inferior mesenteric vein was running over the cyst but was only identified after drainage of 18 litres of clear fluid. The cyst wall was excised from its origin in the sigmoid mesentery and was carefully dissected free. Preservation of the colonic blood supply and ureters was achieved. Histological examination revealed a benign simple true cyst, with patchy mural calcification. Fluid cytology revealed occasional macrophages with no epithelial component. Biochemistry revealed an albumin level of 27 g/l. Postoperatively, he made an excellent, uncomplicated recovery and was discharged 4 days postoperatively. Appropriate imaging made the diagnosis which was not possible clinically and informed the surgeon of the structures likely to be encountered.

Learning points

- A high index of clinical suspicion allied with appropriate imaging is necessary to fully investigate rare causes of abdominal distension.
- Careful surgical excision in the presence of distorted anatomy is necessary to avoid significant visceral or vascular injury.

Competing interests None.
Patient consent Obtained.