Complications of minimal incision open nephrectomy in living donors

Sir,

Minimal incision open living donor nephrectomy (MILN) has emerged recently as a cost-effective alternative to laparoscopic techniques [1,2], particularly for developing countries [3], but little is known about the frequency of complications with this method. The case described here is that of a 36-year-old female donor who underwent right-sided MILN on August 28, in the setting of a sibling-to-sibling kidney transplantation. The early postoperative period was uneventful. However, on the ninth postoperative day, she complained of persisting, increasing right lumbar pain, worsened by walking and coughing. Haematocrits were unchanged. WBC count was normal. Chest X-rays and a plain abdominal film were unrevealing. Sonographical examination disclosed a collection of about 50 cc occupying the nephrectomy site. The patient was given cypro and analgetics. However, she presented again on September 15 with the same complaints, now associated with non-specific abdominal symptoms. The latter symptoms improved with metronidazole but the lumbar pain persisted. On September 20 she was readmitted to hospital. A control sonogram revealed a moderate increase of fluid collection at the nephrectomy site. An abdominal CT revealed a gas-containing retroperitoneal cavity with a small fluid level at the bottom (Figure 1A and B). A pig-tail catheter was placed percutaneously under CT guidance draining gas and ~40 cc of lymph. Almost complete pain relief was experienced by the patient immediately after this procedure. As a control CT (Figure 1C and D) performed 3 days later showed nearly complete resolution of the lesion, the catheter was removed. The patient was discharged asymptomatic.

The etiology of the observed pneumoretroperitoneum (PNP) in this case is unclear. PNP was probably already present since the early postoperative period but sonography and abdominal X-rays failed to disclose it since PNP cannot be distinguished from bowel gas with either of these methods. One possible source of PNP was inadvertent pleural tear but a pneumothorax was excluded. Another possible origin of PNP was infection with gas-producing microorganisms. However, this complication usually produces severe life-threatening systemic disease with signs of toxae-mia. In fact, our patient had no clinical evidence of bacteremia. Thus, we speculated that PNP probably resulted from air remaining trapped at the time of wound closure favoured by the small incision size (10 cm). In conclusion, in living donors with unexplained persistent lumbar pain after MILN, PNP should be excluded.

Conflict of interest statement. None declared.

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Fig. 1. Transverse (A) and sagital (B) computer tomography scans showing a predominant air-containing ovoid-shaped retroperitoneal cavity at the nephrectomy site with a small fluid level (lymph) at the bottom. Control scans (C and D) after drainage of the lesion content through a pig-tail catheter inserted percutaneously.