CASE REPORT

A case of asymptomatic renal pseudoaneurysm post partial nephrectomy treated successfully

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Accepted 13 February 2014

SUMMARY

Pseudoaneurysm remains one of the rare complications of partial nephrectomy with reported rates of 0.4–1.4%. We add to the literature a case of asymptomatic pseudoaneurysm post laparoscopic partial nephrectomy (LPN) that was successfully treated with embolisation.

BACKGROUND

Pseudoaneurysm post laparoscopic partial nephrectomy (LPN) is a rare complication and in majority of cases patients present with symptoms of pain, haematuria and dysuria.^{1 2} In our reported case, the patient had no symptoms and was found to have a mass on follow-up CT scan that was confirmed later to be a pseudoaneurysm on ultrasonography (US).

CASE PRESENTATION

We present a 60-year-old man with an incidental finding of a small left renal mass on abdominal US to investigate an abnormality in his liver function tests. He underwent partial nephrectomy through transperitoneal three ports approach. Histopathology confirmed this to be a grade 1 clear cell carcinoma with clear margins. A follow-up CT scan detected a mass in the lower pole of the left kidney which was confirmed by US to be a pseudoaneurysm. At this stage, the patient remains asymptomatic. Other medical history included cirrhosis.

INVESTIGATIONS

A follow-up CT scan was performed 6 months post-surgery and a 5 × 4 cm mixed cystic and solid mass

Figure 2 An ultrasound scan showing turbulent flow in the mass confirming the diagnosis of pseudoaneurysm.

in the lower pole of the left kidney was detected (figure 1).

A Doppler US was arranged and once again a non-echoic lesion is seen within the cortex of the inferior pole of the left kidney with a turbulent Doppler flow within the centre in keeping with

Figure 1 CT scan showing a mass in the lower pole of the left kidney post partial nephrectomy.

Figure 3 Embolisation of the pseudoaneurysm.

To cite: Jalil R, Mohamed O, Webster J. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2014-203792

Figure 4 Postemobilisation ultrasonography showing no flow in the pseudoaneurysm.

blood flow that was consistent with the appearances of a pseudoaneurysm (figure 2).

DIFFERENTIAL DIAGNOSIS

- Postoperative haematoma and/or collection.
- Recurrence of tumour. However, after discussion with the urology multidisciplinary team meeting, this was excluded in our case.

TREATMENT

The patient underwent percutaneous selective coil angioembolisation. The approach was through ultrasound-guided retrograde right common femoral artery puncture (figure 3).

Postprocedure, a Doppler US showed a well-defined, 4×4×4 cm, slightly heterogenous, moderately echogenic mass with no Doppler colour flow (figure 4). This was consistent with a successful embolised pseudoaneurysm.

OUTCOME AND FOLLOW-UP

The patient was discharged with no immediate complications and to be followed up in the outpatient department with follow-up imaging and blood investigations.

DISCUSSION

As aforementioned, pseudoaneurysm is a rare sequela post partial nephrectomy but a potentially life-threatening one.

There have been some reported cases in the literature about presentation and management of pseudoaneurysm post partial nephrectomy.^{3–5} It has been reported that first symptom presentation was observed at a median of 12.5 days (range 6–36) after surgery.⁶ Early identification and proper management can help reduce the potential morbidity associated with pseudoaneurysms.

Learning points

- We reemphasise on regular follow-ups of all patients who had partial nephrectomy.
- Early identification and proper management can help reduce the potential morbidity associated with pseudoaneurysms.
- Minimal invasive treatment should be considered as the first line of management in these cases.
- Despite that pseudoaneurysm is associated with symptoms in most of the cases; symptoms should not be the only indicator to carry out follow-up imaging.

Contributors RJ was involved in data collection, analysis, literature review and drafting the abstract. OM helped with data collection, imaging and design the abstract. JW helped with drafting, the operating surgeon and final review of the abstract.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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