presumptive diagnosis was made of bleeding from colonic diverticular disease and in view of his age he was treated conservatively. Over the next 48 hours he had two further episodes of rectal bleeding suggesting melanoma associated with an episode of haematemesis, hypotension and tachycardia. There was a fall in haemoglobin requiring transfusion. An emergency gastroscopy revealed blood in the duodenum but no other lesion was seen. At operation a large chronic post-bulbar duodenal ulcer was discovered which was eroding into the neck of the gall bladder and the anterior branch of the cystic artery. A partial (Billroth II) gastrectomy was performed and the patient made a full recovery.

Various treatment modalities to arrest cystic artery haemorrhage include endoscopic electrocoagulation or laser therapy, embolisation7 of the cystic or right hepatic artery, and surgery. A cysto-enteric anastomosis is feared with a higher risk of infection of the gall bladder. At surgery, cystic artery ligation with cholecystectomy has been recommended because ligating the artery and leaving the gall bladder in situ could lead to infection.8 This was certainly not the case in our elderly patient where we simply tied the cystic artery, probably the anterior branch and performed a Billroth II gastrectomy.

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Immediate right-sided flank pain occurred. Post-biopsy blood pressure was stable at 180/90 mmHg and he subsequently passed 300 ml of clear urine. His severe flank pain persisted. Abdominal examination revealed right flank tenderness with guarding and normal bowel sounds. Ultrasonography showed a 2–5 cm haematoma over the lower pole of the right kidney and free fluid (‘probable blood’) over the right lobe of the liver.

The patient settled with analgesia, remaining haemodynamically stable and passed a further 250 ml of rose-coloured urine. Fifteen hours post biopsy his blood pressure dropped acutely to 100/60 mmHg and he developed generalised abdominal discomfort. His temperature was 37.5°C and he was sweaty with clinically evident generalised peritonitis.

Laboratory investigations revealed: haemoglobin 16 g/dl, white cell count 12 x 109/l, platelets 185 x 109/l, plasma urea 17 mmol/l, sodium 143 mmol/l, potassium 5.1 mmol/l, bicarbonate 20 mmol/l, chloride 109 mmol/l, creatinine 320 mmol/l, and amylase 320 Somogyi Units (normal <250). There was no free gas on abdominal or chest X-ray.

After rapid resuscitation he underwent emergency laparotomy where bile-stained peritonitis with collections under both diaphragms and in the pelvis was found. There was a pinpoint perforation in the fundus of a small gall bladder which was lying in a normal anatomical position and displayed no evidence of acute inflammation. The omentum had migrated towards the gall bladder but had not sealed the hole. He underwent oversewing of the gall bladder, peritoneal lavage and peritoneal drainage.

He spent 21 days in hospital, his stay being complicated by a lower respiratory tract infection. His impaired renal function remained stable. Report of the biopsy confirmed kidney tissue, but there was no gall bladder tissue present.

Haemorrhagic complications of percutaneous renal biopsy are common (see box), but these are not usually life threatening and serious complications are rare.1–5

Usually patients with iatrogenic perforated gall bladders develop pain and hypotension shortly after the incident. If there is no underlying obstruction of the biliary tree the abdominal pain and hypotension are usually self-limiting, not resulting in peritonitis.6

Our case of gall bladder perforation was complicated by peritonitis. We therefore suggest that if a patient develops abdominal pain post renal biopsy he/she should be observed closely and an ultrasound scan performed. Conservative management for a short time is appropriate but early signs of peritoneal irritation demand surgical intervention, acknowledging the possibility of a perforated viscus as a potentially serious complication of a relatively safe procedure. The use of real-time ultrasound during biopsy may help reduce the number of complications.

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Iatrogenic gall bladder perforation.

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*Postgrad Med J* 1995 71: 126
doi: 10.1136/pgmj.71.832.126

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