Acute Abdomen in Chronic Renal Failure

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Sir,

Patients with chronic renal failure seem prone to develop acute abdominal emergencies due to causes different from those usually found in the general population. Spontaneous perforation of the colon [1], ischemic necrosis of the small bowel with cystic neumatosis [2], diverticulitis [3], pancreatitis [4], spontaneous peritonitis [5] and ischemic colitis following bilateral nephrectomy [6] have all been described in chronic renal failure. We also read with interest the recent report by Aubia et al. [7] on the occurrence of ischemic colitis in 3 patients with terminal uremia due to polycystic kidney disease. However, and in spite of all of these isolated reports, the real incidence of the different causes of acute abdomen in patients with irreversible uremia is largely unknown.

We have reviewed our experience with 19 cases of acute abdomen among patients with terminal uremia and we have compared them with a group of 244 patients with normal renal function and acute abdominal pain who were seen consecutively over an 8-month period at our hospital’s emergency room. Mean age in both groups was similar (39.4 ± 14 and 45.9 ± 23.7 years, respectively).

Of the 19 patients with renal failure, 17 were on hemodialysis, which means a 7.5% incidence of acute abdomen in our hemodialysis population (226 patients during an average time on dialysis of 46.9 ± 35.9 months). The 2 patients with renal failure who were not on dialysis had serum creatinines of 530 and 512 µmol/l, respectively.

The more frequent causes of acute abdomen in uremic patients were local inflammation (mainly appendicitis), pancreatitis and hemoperitoneum, whereas in the group with normal renal function they were local inflammation (appendicitis), intestinal obstruction and visceral perforation (table I). Acute pancreatitis and hemoperitoneum were significantly more frequent in uremic patients than in the control population (table I). In patients with chronic renal failure, hemoperitoneum was caused in 1 patient each by ruptured ovarian cyst, ectopic pregnancy, gangrenous cholecystitis with perforation of the gallblader, hemorrhage following liver biopsy, and splenic rupture.
There was no relationship between the etiology of renal disease and the cause of acute abdomen. In 40% of cases, abdominal pain started during hemodialysis, particularly in cases of pancreatitis and hemoperitoneum. Preoperative diagnosis was correct in 70% of all cases. Mortality was 11% (2 cases of pancreatitis).

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Thus, although relatively unusual diseases presenting with abdominal pain can develop in patients with terminal uremia, acute appendicitis is still the commonest cause of acute abdomen in this group, whereas acute pancreatitis and hemoperitoneum occur with more frequency than in the general population. In contrast with the report of Aubia et al., ischemic colitis was never found in our patients with renal failure.

References