LETTERS TO THE EDITOR

Spontaneous splenic rupture complicating pancreatitis in a chronic hemodialysis patient


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Sir, – the spectrums of findings involving spleen during an acute pancreatitis episode include intrasplenic pseudocyst, cystic abscess, inflammation of the splenic vessels and pseudoaneurysms, splenic infarction, splenic hemorrhage, hematoma and rupture [Fishman et al. 1995]. Although subcapsular splenic hematoma and limited parenchymal lesions probably resolve spontaneously, any case of splenic rupture requires surgery [Roderick et al. 1977].

A 65-year-old man under chronic hemodialysis for the last 2 years was admitted to our department because of upper abdominal pain the last 24 hours. The patient had a history of recurrent episodes of acute pancreatitis during the last 3 years. There was no evidence of intrasplenic abnormality, biliary tract lithiasis, recent abdominal trauma nor history of alcohol abuse. Clinical examination revealed upper left quadrant tenderness, decreased bowel movements and fever up to 40 °C. Laboratory examination showed anemia, leucocytosis and a 6-fold serum amylase increase. Conservative treatment was started, but on day 6 the patient became hypotensive. Computed tomography showed hemoperitoneum due to splenic subcapsular hematoma rupture (Figure 1) and splenectomy was performed with peritoneal drainage. Patient recovered totally on day 14 and lives on in good health in the 2-year follow-up.

Laboratory diagnosis of pancreatitis in uremia by means of serum pancreatic enzyme determination is difficult, because in uremic patients, amylase serum levels may rise in the absence of acute pancreatitis. In these instances, fecal chymotrypsin can be helpful. In addition, ultrasonographic changes of pancreas seem to be rare and mild in regular hemodialysis patients, and they do not generally reflect any relevant pancreopathy [Ventrucci et al. 1995]. Pancreatic enzymes that dissect into the spleen may erode small intrasplenic vessels resulting in intrasplenic hemorrhage [Lankisch 1990]. When the problem is underestimated or if the diagnosis is delayed, the patient may rapidly become hypotensive and even shocked. This complication may be a unique prognostic sign, indicating the need for aggressive intervention [Thompson and Ashley 1997]. Percutaneous drainage in these cases is generally contraindicated because of the risk of causing intraperitoneal hemorrhage [Haff et al. 1977, Vyborny et al. 1988].

It has been suggested that in hemodialysis (HD) patients fibrous fixation of splenic hilum may predispose the spleen to rupture either as a result of a minor trauma or because of an overlooked intrasplenic cyst [Clave et al. 1992]. In addition, splenic subcapsular hematoma in long-term hemodialysis but without coexisting pancreatitis had once been reported [Korzets et al. 1991]. In this patient, no computed tomography-evidence of splenic involvement during all previous episodes of acute pancreatitis had ever been shown. In addition to this, extrahepatic portal hypertension as result of chronic pancreatitis was not the case. Overlooked small intrasplenic cysts could be an exceptional probability because of the very short time interval between epi-

Figure 1. Spontaneous rupture of subcapsular splenic hematoma (arrow) complicating acute pancreatitis in a hemodialysis patient.
sode occurrence and splenic rupture. Pathology report of a large hematoma as evidence of “peptic digestion” implies that an inflammatory mass extending from the tail of the pancreas into the hilum of the spleen involving splenic vessels, could be the most probable explanation of what happened in this case.

Chronic hemodialysis patients with pancreatitis should be closely monitored for any complications that may also involve the spleen. The whole hemodialysis procedure, heparin administration and serum enzyme levels should be always monitored when acute pancreatitis occurs in such patients.

References

Thompson JE, Ashley SW 1997 Subcapsular hematoma of the spleen associated with acute pancreatitis. Surgery 121: 231-233

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The influence of dialyzer type on serum albumin in hemodialysis patients

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Sir — Malnutrition is a widespread problem in chronic hemodialysis patients and has been associated with increased morbidity and mortality. The etiology of malnutrition in this patient population can be multifactorial. The relationship of the hemodialyzer membrane composition and/or reprocessing procedure and nutritional status is controversial. Since the serum albumin level is a widely employed indicator of nutritional status in hemodialysis patients, we examined its relationship to hemodialyzer composition and reprocessing procedures in our dialysis unit. A compromise in the sterility of reverse osmosis water in our dialysis unit reuse room, prompted a switch from utilizing high flux (HF) to low flux (LF) cellulose hemodialyzers, with no reuse, for 3 months. All patients receiving 3 treatments/week had their dialysis records reviewed retrospectively. Patients were included if they had received HF treatments for 3 months prior to a 3-month period of LF dialysis, and then for 3 months afterwards utilizing HF treatments again. The HF dialyzers were reused for up to 25 times, with peracetic acid/hydrogen peroxide reprocessing. A 6-week re-equilibration period was allowed between each switch where data were not collected.

For each dialysis session, the following variables were recorded: the dialyzer utilized, treatment duration and ultrafiltrate removed. On a monthly basis, the serum albumin, Kt/V and nPCR were recorded. The mean 3-month values for each variable were compared by ANOVA repeated measures. For each variable, a test for quadratic trend was made for the 3 treatment periods. Albumin was measured by the bromocresol purple assay.

Of the 234 patients dialyzed in our unit during that time period, 27 were identified as...