Calcium polystyrene sulfonate

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Colonic necrosis: case report

A 63-year-old woman developed colonic necrosis during treatment with calcium polystyrene sulfonate.

The woman, who had a history of malignant hypertension with chronic renal failure, had been receiving dialysis over the past 10 years. She was receiving oral calcium polystyrene sulfonate [dosage not stated] for hyperkalaemia*. She presented to an emergency department with a 4-day history of right upper quadrant abdominal pain [duration of therapy to reaction onset not stated]. The pain occurred every 2 to 3 hours and lasted 1 to 2 hours. Upon hospitalisation, her blood pressure was 140/80 mmHg, her pulse was 96 beats/min, her body temperature was 37.7°C and her respiration rate was breaths/min. Abdominal examination revealed decreased bowel sound, right upper abdominal tenderness and rebound tenderness; however, no mass was palpated. She had a leukocyte count of 13 980/mm3, creatinine of 6.0 mg/dL and potassium of 6.7 mmol/L. Abdominal CT revealed concentric wall thickening in the ascending colon and infiltration in the pericolic fat along the colon.

Treatment options included fasting, intravenous fluid administration and antibiotics. The woman received haemodialysis every other day. Her abdominal pain had decreased in severity by hospital day 3. On day 6, a colonoscopy revealed a circular ulcerative mass along the lumen at the proximal part of the ascending colon. Crystals of calcium polystyrene sulfonate were detected in biopsy specimens from around the mass. Her condition improved with treatment and on day 7 she began enteral nutrition without worsening of her symptoms.

* The abstract stated that she was receiving calcium polystyrene sulfonate orally and rectally.

Lee SH, et al. Calcium polystyrene sulfonate induced colonic necrosis in patient with chronic kidney disease. Korean Journal of Gastroenterology 55: 261-5, No. 4, Apr 2010 [Korean; summarised from a translation] - South Korea 80303916