Calcium polystyrene sulfonate

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Intestinal obstruction in an elderly patient: case report

Intestinal obstruction occurred in a 74-year-old man following treatment with calcium polystyrene sulfonate for hyperkalaemia.

The man was diagnosed with type IV renal tubular acidosis following hospitalisation due to syncope. During hospitalisation, he was treated with oral calcium polystyrene sulfonate 15g three times daily. However, because of oral intolerance the resin was then given rectally as a retention enema at a dosage of 50g 12-hourly. This treatment was continued for 8 days due to persistent hyperkalaemia.

The man developed constipation on the fourth day of treatment, and lactulose was prescribed. Two days after the cessation of resin therapy, he experienced abdominal pain, failure to pass gas via the rectum, and abdominal distention. Rectal examination revealed an anal fissure and faecal impaction, and an abdominal x-ray showed colonic distention with faecal material loaded in the descending colon. Nonoperative measures were unsuccessful, and a caecostomy was performed, with the removal of inspissated faeces including resins; he was discharged after surgery.

Author comment: 'There are only two reports of intestinal obstruction due to SPS [sodium polystyrene sulfonate] or CPS [calcium polystyrene sulfonate] therapy. In fact this unwanted effect is not included in product information enclosed with the drug.' The duration of resin therapy could have been excessive in this case, but no limit is actually defined. It may be advisable to limit the duration of CPS therapy in elderly, uraemic patients. In this patient, initial constipation could have been aggravated by the anal fissure.

García-Pardo G, et al. Intestinal obstruction complicating calcium polystyrene sulphonate therapy. Nephrology Dialysis Transplantation 11: 751, Apr 1996 - Spain 8004361