

PICTURES IN DIGESTIVE PATHOLOGY

Lanthanum carbonate has a radiopaque appearance on the plain abdominal radiography

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CASE REPORT

An 84-year-old woman presented to her local emergency department for abdominal pain. Her medical history included hemodialysis in the treatment of chronic renal failure, Parkinson's disease, chronic atrial fibrillation, chronic constipation, appendicectomy and cholecystectomy. The patient complained of diffuse abdominal pain for 4 days, associated with nausea and vomiting in the last 24 hours.

Physical examination revealed a soft and depressible abdomen, diffusely painful, without signs of peritoneal irritation. A digital rectal exam revealed large amount of stool in the rectal vault without palpable masses. Blood tests showed a creatinine level of 2.7 mg/dl due to chronic renal failure and the plain abdominal radiography revealed a dolichocolon completely contrasted (Fig. 1).

The patient denied the realization of any medical imaging-proofs with oral or rectal contrast. Reviewing home treatment, the patient was taking lanthanum carbonate (2 tablets of 750 mg per day) since 1 month ago, a drug that contrasts the digestive tract. Appreciating contrast in the colon, intestinal subocclusion was excluded and the clinical picture was attributed to her chronic constipation.

DISCUSSION

Lanthanum carbonate is a phosphate binder which does not contain calcium or aluminum and it is used to treat hyperphosphatemia in patients with end-stage renal failure. It is poorly absorbed in the digestive tract and the absorbed part is excreted in bile (1). Unlike aluminum-based binders, lanthanum carbonate does not cross the blood-brain barrier (2). This drug binds dietary phosphorus and it forms insoluble complexes in the gastrointestinal tract that are radiopaque on plain abdominal radiography and computed tomography (3-5).

In conclusion, it should be noted that lanthanum carbonate contrasts the digestive tract, with radiopaque appearance on the plain abdominal radiography and without any pathological significance.



Fig. 1. Plain abdominal radiography in which it is observed the totality of the colonic frame contrasted due to the radiopacity of the lanthanum phosphate complexes.

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