MICROCRYSTALLINE DRUG-INDUCED ENTEROPATHY AMONG ESRD PATIENTS ON NON-CALCIUM BASED PHOSPHATE BINDERS: PREVALENCE AND CLINICAL FEATURES

Francesco Iannuzzella[1], Mattia Corradini[1], Loredana De Marco[2], Riccardo Bertolini[1], Sonia Pasquali[1], Alfredo Stefani[1], Mariacristina Gregorini [1]

[1]Nephrology and Dialysis Unit, Arcispedale Santa Maria Nuova, Istituto di Ricovero e Cura a Carattere Scientifico, Reggio Emilia, Italy.
[2]Pathology Unit, Arcispedale Santa Maria Nuova, Istituto di Ricovero e Cura a Carattere Scientifico, Reggio Emilia, Italy.

OBJECTIVES

Long-standing non-calcium based phosphate binders administration has been recently associated with a number of different gastric and intestinal lesions histologically characterized by the presence of drug-related crystal deposits.

We performed this study to investigate the prevalence and the clinical features of this emerging drug-induced pathology among ESRD patients.

METHODS

We retrospectively evaluated the prevalence of microcrystalline drug-induced enteropathy in our ESRD patients between January 2011 and December 2016. During the study period, 607 patients (F 214 , mean age 69 yrs and M 393, mean age 70 yrs) with stage 5 chronic kidney disease received dialysis in our unit (PD 112). 344 received non-calcium based phosphate binders. 162 of these patients underwent gastrointestinal endoscopic investigations. A total of 190 gastroscopies were performed in 162 patients, 167 colonoscopies were performed in 132 patients. 91 patients underwent both colonoscopy and gastroscopy.

RESULTS

Five cases of microcrystalline drug-induced enteropathy were identified. A 58-year-old woman on peritoneal dialysis presented with features of lanthanum carbonate-induced gastritis (Fig. 1-2). At the time of evaluation, she had been receiving lanthanum carbonate 1 g bid for about 6 months. Gastroscopy was performed because of non specific complaints of nausea, vomiting and dyspepsia. Four patients presented with a picture of sevelamer-induced colitis (Fig 3). A 63-year-old woman on hemodialysis who underwent partial colectomy because of colon cancer presented with evidence of intestinal deposits of sevelamer carbonate. She had received sevelamer carbonate at a dose of 4.8 g/day for 13 months. A 78 year-old woman on hemodialysis underwent colonoscopy because of acute diverticulitis: colonic crystalline sevelamer deposits were seen on biopsy. Her mean dose of sevelamer was 3.2 g/day administered for 22 months. Sevelamer deposits were seen in the colonic mucosa of two other men (62 and 68 yrs) on hemodialysis who underwent colonoscopy because of persistent diarrhea. Both patients were on sevelamer 3.2 g/day for more than 8 months.

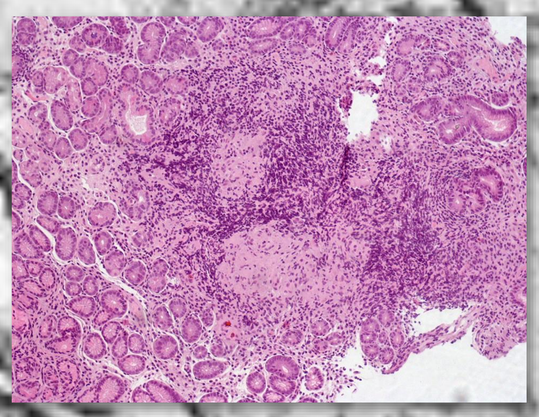

Fig. 1.

Changes in gastric mucosa due to lanthanum carbonate deposits

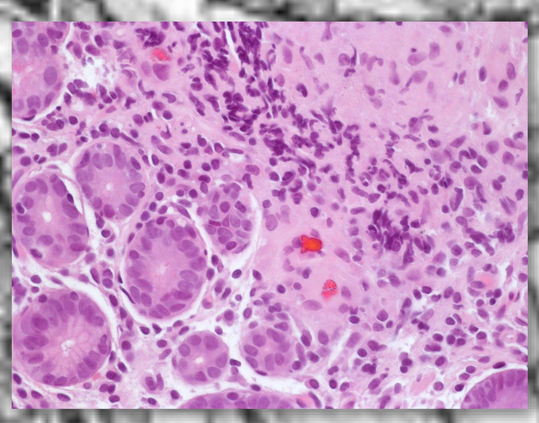

Fig. 2.

Lanthanum carbonate deposits in gastric mucosa

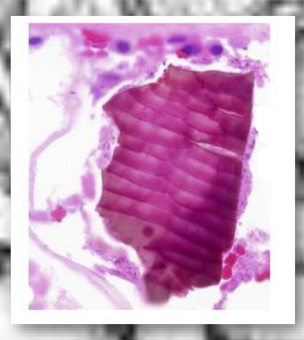

Fig. 3.

A Sevelamer crystal in colonic mucosa

CONCLUSIONS

At the best of our knowledge, so far, only a few cases of gastroenteritis due to non-calcium based phosphate binders have been described in the literature. In our study, among ESRD on non-calcium based phosphate binders who underwent a gastrointestinal endoscopic examination, the overall prevalence of microcrystalline intestinal deposits was 2.5%. More studies are needed to assess the clinical significance of these findings.

54 ERA
830--SP
Patients education & training
Francesco Iannuzzella
DOI: 10.3252/pso.eu.54ERA.2017
ePosters supported by F. Hoffmann- La Roche Ltd.
54th ERA-EDTA CONGRESS Madrid, Spain June 3rd-6th 2017
PosterSessionOnline.com