



Image of the Month

Gastric lanthanum phosphate deposition masquerading as white globe appearance

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A 66-year-old Japanese man, on hemodialysis for chronic renal failure, underwent esophagogastroduodenoscopy screening. He had been taking lanthanum carbonate for five years to treat hyperphosphatemia. Esophagogastroduodenoscopy showed an elevated lesion with a central depression in the gastric angle (Fig. 1A), in addition to atrophic gastritis and intestinal metaplasia. A magnified observation with narrow band imaging showed multiple white substances deposited within the depressed area (Fig. 1B), which resembled white globe appearance. A biopsy examination from the depressed lesion showed intestinal metaplasia and deposition of fine, amorphous, eosinophilic material (Fig. 2). There were no neoplastic changes. Scanning electron microscopy revealed fine, granular substances (Fig. 2: inserted image), which was diagnosed as lanthanum phosphate by energy dispersive X-ray spectrometry and elemental mapping.

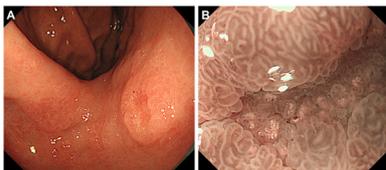


Fig. 1. Esophagogastroduodenoscopy images. An elevated lesion with a central depression is seen in the gastric angle (A). A magnified observation with narrow band imaging showed multiple white substances deposited within the depressed area, which resembled white globe appearance (B).

White globe appearance has been known to be a key feature indicating gastric neoplasms, as it is reportedly found within the margin of the cancerous gastric epithelium [1]. The endo-

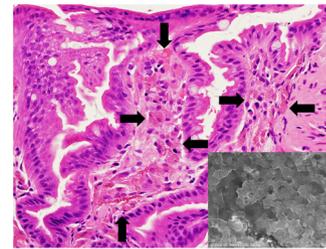


Fig 2. Pathology images. Intestinal metaplasia and deposition of fine, amorphous, eosinophilic material are seen. Scanning electron microscopy reveals fine, granular substances (inserted image), which are consistent with lanthanum phosphate.

scopic images observed in the presented patient were similar to white globe appearance, and thus, could be confused with early gastric cancer. This case highlights the importance of the medication history when the patient presents with whitish lesions, since lanthanum-related gastric lesions can masquerade as white globe appearance.

Conflict of interest

None declared.

Reference

- [1] Doyama H, Yoshida N, Tsuyama S, Ota R, Takeda Y, Nakanishi H, et al. The “white globe appearance” (WGA): a novel marker for a correct diagnosis of early gastric cancer by magnifying endoscopy with narrow-band imaging (M-NBI). *Endosc Int Open* 2015;3:E120–4.

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