Succesful treatment of type-1 gastric carsinoid by endoscopic polypectomy and argon plasma coagulation

Gurhan Sisman[1], Yagmur Bashan[2], Mustafa Ozel[2], Aysegül Ozis[1]

(1) Department of Gastroenterology, (2) Department of Internal Medicine, Istanbul Training and Research Hospital, Istanbul, Turkey.

To the Editor,

Neuroendocrine tumors (NETs) are originating from neuroendocrine cells. Discrimination of the subtypes of gastric NETs is important for their management (1). Suggested management of these tumors have been controversial and been containing different therapeutic strategies (2). We herein report a rare case of type 1 gastric NET which was treated with endoscopic polypectomy and argon plasma coagulation (APC).

A-44-year-old woman was admitted to our hospital due to epigastric pain. On admission, laboratory tests showed low hemoglobin, mean corpuscular volume (MCV) and B12 levels. The patient underwent to esophagogastroduodenoscopy (EGD) because of iron and B12 deficiency. EGD examination revealed multiple intraluminal polypoid lesions in gastric corpus (there were 7 small nodular lesions in diameter < 1 cm and one irregular-shaped polyp in diameter with 18 mm) (Fig. 1A-B). Biopsy samples were taken from the lesions and also mucosal areas of antrum and corpus. Biopsy samples were examined after histochemical staining with Chromogranin A, synaptophysin and proliferative activity (ki-67 index). They were positive by Chromogranin A (CgA) and synaptophysin. The surrounding mucosa indicated atrophic gastritis and hyperplasia of enterochromaffin-like (ECL) cells. Fasting serum gastrin value and serum antibody levels against gastric parietal cells were very high with 908 pg/ml (normal levels : 13-115 pg/ml), 94 U/ml (normal values < 10 U/ml), respectively. A diagnosis of-autoimmune atrophic gastritis, type 1 gastric carcinoid was made.

Endosonography was performed in order to evaluate the depth of infiltration of the largest polyp. The tumor was limited to the muscularis mucosa and perigastric lymph node was not detected. The patient underwent to endoscopic polypectomy for the largest tumor (18 mm diameter) and APC treatment for the small nodular lesions four times in the different sessions (Fig. 2). Histological examination of the removed large polyp showed well-differentiated carcinoid tumor (Gastric NET type 1) and ki-67 index was < 2%. Serum gastrin value (90 pg/ml) and EGD were found within normal range after one year of APC treatment.

The treatment of type 1 gastric NETs is still controversial. If tumor size is > 10 mm and there are up to six polyps without muscularis propria involvement at EUS examination, endoscopic resection is still reference approachment (3). In this case, endoscopic polypectomy and APC were performed to treat the largest polyp, whereas small nodular lesions were treated with APC. There was no recurrence during one year of follow-up.

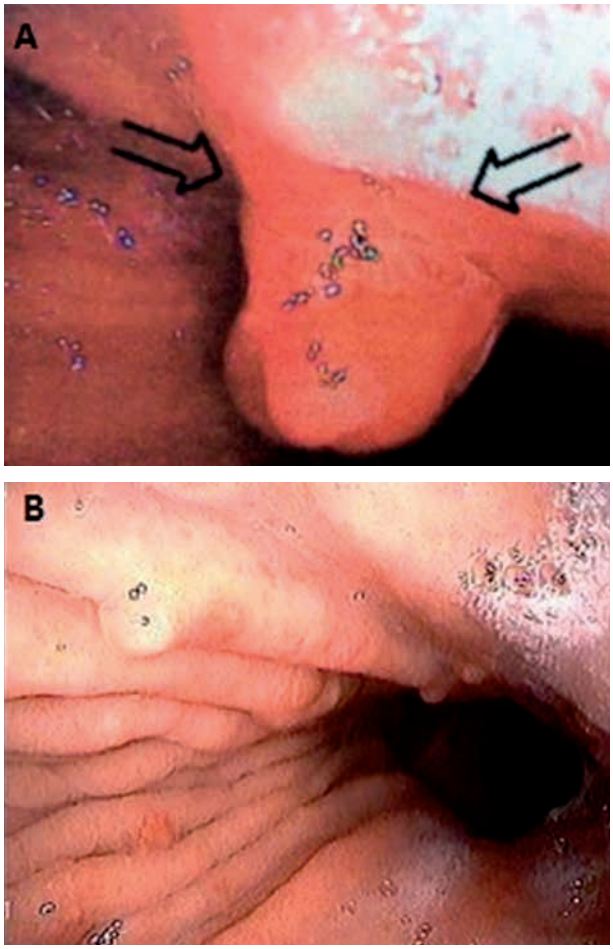

Fig. 1. — Largest polyp (A) and small nodular lesions (B) in gastric corpus by endoscopy.

Correspondence to : Gurhan Sisman, Istanbul Training and Research Hospital, 34098, Istanbul, Turkey. E-mail : sisman1981@hotmail.com

Submission date : 21/05/2014
Acceptance date : 18/06/2014

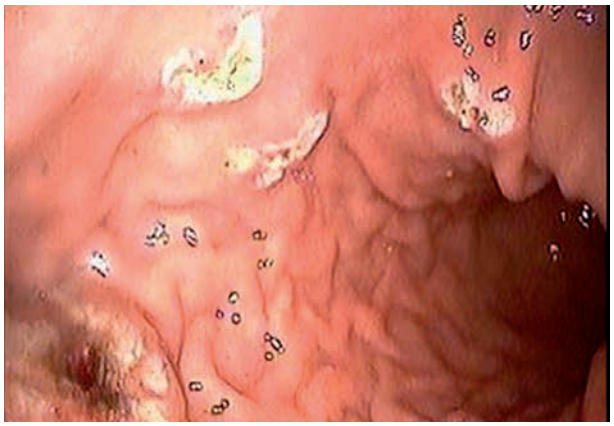

Fig. 2. — Endoscopic view after APC treatment

Consequently, APC treatment might be included in the list of treatment choice for type 1 NETs.

References

1. KLOPPEL G., PERREN A., HEITZ P.U. The gastroenteropancreatic neuroendocrine cell system and its tumors : the WHO classification. *Ann. NY Acad. Sci*., 2004, **1014** : 13-27.
2. THOMAS R.M., BAYBICK J.H., ELSAYED A.M., SOBIN L.H. Gastric carcinoids. An immunohistochemical and clinicopathologic study of 104 patients. *Cancer*, 1994, **73** : 2053-2058.
3. RUSZNIEWSKI P., DELLE FAVE G., CADIOT G., KOMMINOTH P., CHUNG D., KOS-KUDLA B. et al. Well-differentiated gastric tumors/carcinomas. *Neuroendocrinology*, 2006, **84** : 158-164.