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Peptic ulcer and intestinal metaplasia associated with Helicobacter pylori colonization in gastric heterotopia of the tongue

To the Editor,

Gastric heterotopia (GH) can occur throughout the digestive tract; however, involvement of the tongue is rare, and fewer than 40 cases have been reported up to date. In the head and neck region, it is frequently seen in infants or young adults, with a male predominance (1). Clinical presentation varies, depending on the involved site, as well as the extent of the lesion. An interesting issue of GH is the colonization of *Helicobacter pylori (H. pylori)* and its association with complications. Here, we report the first case of peptic ulcer and intestinal metaplasia associated with colonization of *H. pylori* in GH of the tongue.

A 21-year-old man was referred to the ear, nose, and throat (ENT) department for a slowly growing mass on his tongue that lasted for 4 years and became ulcerated in the last 3 months. Physical examination revealed an ulcerated polypoid mass of 0.9 cm in the biggest diameter at the anterior part of the tongue. Examination of the oropharynx and nasopharynx did not reveal any other finding. The patient was a nonsmoker, and his family history was unremarkable for orofacial abnormalities. An excisional biopsy was performed for diagnostic and therapeutic purposes.

Histologic evaluation revealed the presence of gastric tissue that extended into the striated muscle layer of the tongue (Figure 1). There were scattered intestinal metaplasia foci containing Goblet cells. Toluidine blue-stained sections suggested the presence of *H. pylori* in the lumina of the glandular epithelium. Colonization of H. pylori was demonstrated by immunohistochemical method using polyclonal *H. pylori* antibody (Cell Marque, Rocklin, CA, USA) and confirmed by polymerase chain reaction-based methods.

H. pylori colonization in GH is mostly limited to esophageal and intestinal lesions (2,3). It is consistently not present in gallbladder (4) and was not reported in the oral cavity before. Although proton pump inhibitors were advised for the treatment of ulcerated lesions, our case suggested that proton pump inhibitors alone may not be sufficient for treatment of GH in the oral cavity. Moreover, besides the predisposing role of *H. pylori* for gastric cancer, its association with oral cancer has also been indicated (5). Therefore, surgical removal may likely be the preferred treatment choice for GH of the oral cavity.

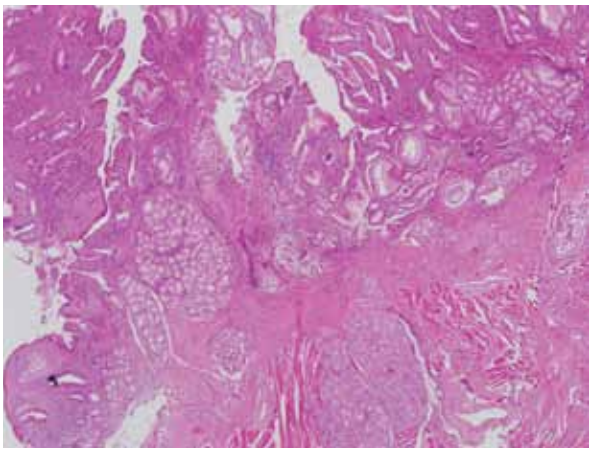

Figure 1. Gastric tissue extends into the striated muscle layer of the tongue (H&E, 100X).

In conclusion, this case demonstrated that *H. pylori* can be colonized in GH of the oral cavity, and its colonization may cause complications, such as ulceration and intestinal metaplasia.

Ethics Committee Approval: N/A.

Informed Consent: Written informed consent was obtained from patient who participated in this case.

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