

# Oral diverticulum

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A diverticulum is a pouch structure projecting outward from the canal of the gastrointestinal tract.<sup>1</sup> It may develop in any region of the gastrointestinal tract, and diverticula occur especially frequently in the large intestine. A diverticulum in the oral cavity is rare. We report a case of an oral diverticulum that developed in buccal mucosa.

A 79-year-old Japanese woman complained of bad breath and food impaction in the right buccal mucosa. She had no history of injury, tumor or surgical operation in the oral cavity. An intraoral examination revealed that there was a diverticulum on the right buccal mucosa full of food debris causing malodor; it was located 5 mm posterior-inferior to the papilla of Stensen's duct (Figure 1A,B). The patient was not aware of the lesion until the present consultation. The diverticular orifice was 7 mm wide by 10 mm long, and the pouch was 10 mm deep with a 10 mm dia. The epithelial lining of the diverticulum was continuous with the buccal mucosa. There was no communication with Stensen's duct.

We surgically resected the diverticulum. At the bottom of the diverticulum, the buccinator muscle was partially absent (Figure 1C). After the resection, the malodor and food impaction were improved. Histologically, the resected diverticulum was normal epithelia and subepithelial connective tissue (Figure 1D).

Since the first oral diverticulum was reported in 1982, only four cases have been reported,<sup>2-5</sup> in part because they are usually asymptomatic. Many diverticula may be overlooked by general clinicians. There are two classes of diverticula: "true" and "false"

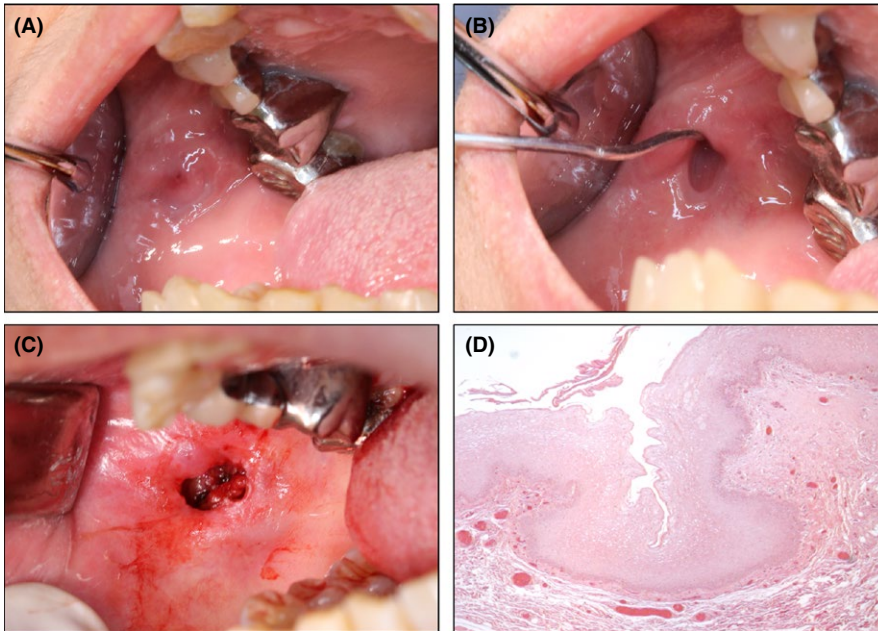
diverticula. A true diverticulum is a protrusion of the submucosal, mucosal, and muscular layers of the gastrointestinal tract wall. A false diverticulum is a protrusion of the submucosa and mucosa through a defect in the muscular layer of the tract. Based on this classification, the oral diverticulum in the present patient's case is false.

Gastrointestinal diverticula are thought to be caused by increased internal pressure and vulnerability of the gastrointestinal tract wall.<sup>1</sup> Although the etiology of oral diverticula is unknown, necrosis of a minor salivary gland, the aborted development of an accessory parotid primordial invagination, hypoplasia of a buccinator muscle, and an idiopathic developmental defect because of invagination of the primary epithelial band have been proposed as causes.<sup>2-5</sup> All reported cases including this case developed near the papilla of Stensen's duct. Considering its site specificity, the development of parotid or accessory parotid may be involved in the onset of this lesion.

Almost all gastrointestinal tract diverticula require no intervention if they are asymptomatic. Regarding oral diverticula, resection should be limited to cases in which there are symptoms such as swelling and impaction of food debris.

## CONFLICT OF INTEREST

The authors have stated explicitly that there are no conflicts of interest in connection with this article.



**FIGURE 1** Intraoral view and histological image. A, Intraoral view at the first visit. B, Intraoral view showing the diverticular orifice. C, Intraoperative view. D, Histological image

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