Endoscopic Differences Between Intranasal Ectopic Teeth

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Ectopic eruption of a tooth into the nasal cavity (intranasal ectopic tooth) is not difficult to be diagnosed with nasal endoscopy. However, endoscopic findings of intranasal ectopic tooth may be different according to the extent covered by the nasal mucosa. Recently, as we experienced, 2 cases of intranasal ectopic teeth that one was incompletely erupted ectopic tooth and the other was completely erupted ectopic tooth, we try to describe the difference in the endoscopic findings between the 2.

A 41-year-old woman was referred to our department with complaints of a right-sided nasal obstruction and recurrent purulent discharge for 4 months. Upon nasal endoscopy of the right nasal cavity, a hard, immobile, and white-colored mass was observed between the nasal septum and inferior turbinate (Figure 1A and B). The tip of the mass was covered with nasal mucosa. Computed tomography (CT) of the paranasal sinuses demonstrated a well-defined linear bony mass resembling a tooth in the inferior aspect of right anterior nasal cavity. The tip of the mass was covered with nasal mucosa. Computed tomography (CT) of the paranasal sinuses demonstrated a well-defined linear bony mass resembling a tooth in the inferior aspect of right anterior nasal cavity. Endoscopic surgery was performed to remove the mass, which found to be a tooth about 1.5 cm length (Figure 1C). During the follow-up, the patient was doing well 12 months postoperatively.

A 14-year-old boy presented with a 6-month history of worsening left nasal obstruction. The patient was initially examined at local clinic, where a mass lesion in the left nasal cavity was identified. Upon nasal endoscopy of the left nasal cavity, a reddish, nontender, hard, smooth-surfaced, and movable mass was observed between the nasal septum and the midportion of inferior turbinate (Figure 2A and B). Computed tomography scans demonstrated a radiopaque tooth-like structure on the nasal floor of the left nasal cavity, which was located approximately halfway between the anterior and posterior portion of the naris. Endoscopic surgery was performed to remove the mass, which was completely erupted from the nasal septum and fully covered with the nasal mucosa but not attached to the septum (Figure 2C). The patient did well at the 6 months regular follow-up.

Intranasal ectopic tooth is a rare clinical entity which can be seen at every age. Since the mechanism of eruption of ectopic teeth is poorly understood, and the exact eruption time is

Figure 1. A, Nasal endoscopy showed the white-colored mass embedded in the nasal floor that its tip (asterisk) was covered with nasal mucosa. B, During endoscopic surgery, the mass was not movable, and the partially covered mucosa was removed. C, After removal of the mass and bleeding control, the extraction site was relatively clear but had the bony defect (white arrow). IT indicates inferior turbinate; NS, nasal septum.

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unpredictable, it is not clear yet why the extent of ectopic tooth eruption differs in each case.\textsuperscript{2,3}

In our cases described above, intranasal ectopic teeth were considered to be supernumerary as they had normal dentition. Although unilateral nasal obstruction is a common complaint, the patient with intranasal ectopic tooth may remain asymptomatic or may present with quite variable symptoms which are similar to the intranasal mass.\textsuperscript{4}

Nasal endoscopy and radiographic findings, especially CT scans may help in the diagnosis and treatment plan.\textsuperscript{3} On endoscopic examination, intranasal teeth are seen most frequently on the floor of the nasal cavity and may often be partially (ivory white mass) or rarely be completely (reddish mass) covered by nasal mucosa. They may facilitate ongoing mineralization and act as an underlying source of infection, which can result in accompanying debris, rhinolithiasis, granulation tissue, and purulent materials around the intranasal ectopic tooth.\textsuperscript{4} Computed tomography is the most useful method to confirm the diagnosis, to evaluate the depth of the eruption site, and to differentiate its situation and anatomical relationship with the other structures.\textsuperscript{4,5}

Treatment of choice is early extraction of the ectopic tooth and the surrounding swollen tissue under endoscopic guidance, when diagnosed because of the potential morbidity, including external deviation of the nose, nasal septal abscess, and oronasal fistula.\textsuperscript{1,3,4}

In conclusion, physician should keep in mind that intranasal ectopic tooth, especially completely erupted and covered by nasal mucosa, may be confused with other intranasal benign tumors.

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