

## LETTER TO THE EDITOR

# Coral from the nose? A double entity: Intranasal supernumerary tooth with coexisting rhinolith

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## TO THE EDITOR,

Rhinolith is a common disorder of the nose that visits the Otorhinolaryngological practice. However, the presence of intranasal dentition either as an ectopic or supernumerary tooth is rare. Intranasal tooth and rhinolith usually present with unilateral nasal obstruction, rhinorrhoea and epistaxis. Previous reports showed that it has been mainly removed under general anaesthesia. However, during COVID-19 period, the trends of surgery have been modified in certain cases, such as conversion to local anaesthesia to suit the limitation in the availability of resources during this epidemic.

Here, we described the case of a teenager who was shocked to discover “coral-like” concretions coming out from her nose. She was then noted to have an intranasal tooth with coexisting rhinolith, which was then extracted smoothly under local anaesthesia.

## CASE PRESENTATION

A 14-year-old fit and healthy teenage girl presented to our ENT Department with a short history of “coral-like” concretions spontaneously extruding out from her left nostril in the past 2 weeks. This was associated with foreign body sensation which was felt within her left nostril for a similar duration. The “coral-like” concretions were hard in consistency and not foul-smelling. These concretions always came out each time she blew her nose hard (Figure 1).

She denied having epistaxis, nasal blockage, rhinorrhoea, cacosmia, facial pain or fever.

She did not have prior history of facial trauma, palatonasal surgery or foreign body insertion.

On examination, there was no craniofacial anomaly or scar seen. On nasal examination, the airflow was good bilaterally. Nasoendoscopic examination revealed crusting with calcified material located at the anterior part of her left nasal cavity. Following nasal toilet, there was a single hard, whitish tooth-like structure seen at the anterior part

of her left nasal cavity, which was situated in between the inferior turbinate, nasal septum and floor (Figure 2 (a) and (b)). The oral and throat examination revealed a complete set of teeth with palatal eruption of right upper lateral incisor (Figure 3). She had good dental hygiene. There was no palatal fistula or cleft seen. Her COVID-19 test result was negative.

Transnasal endoscopic removal of the foreign body was performed after given topical anaesthetic spray using Cophenylcaine. Surprisingly, there was a conical-shaped tooth removed from the maxillary crest of the nasal septum using a forceps. There was bleeding following the removal, but it was manageable with nasal packing. The nasal packing was removed on the following day.

Examination of the extracted tooth revealed a 1.4 cm, conical-shaped tooth (Figure 4).

Post endoscopic removal orthopantomogram (OPG)



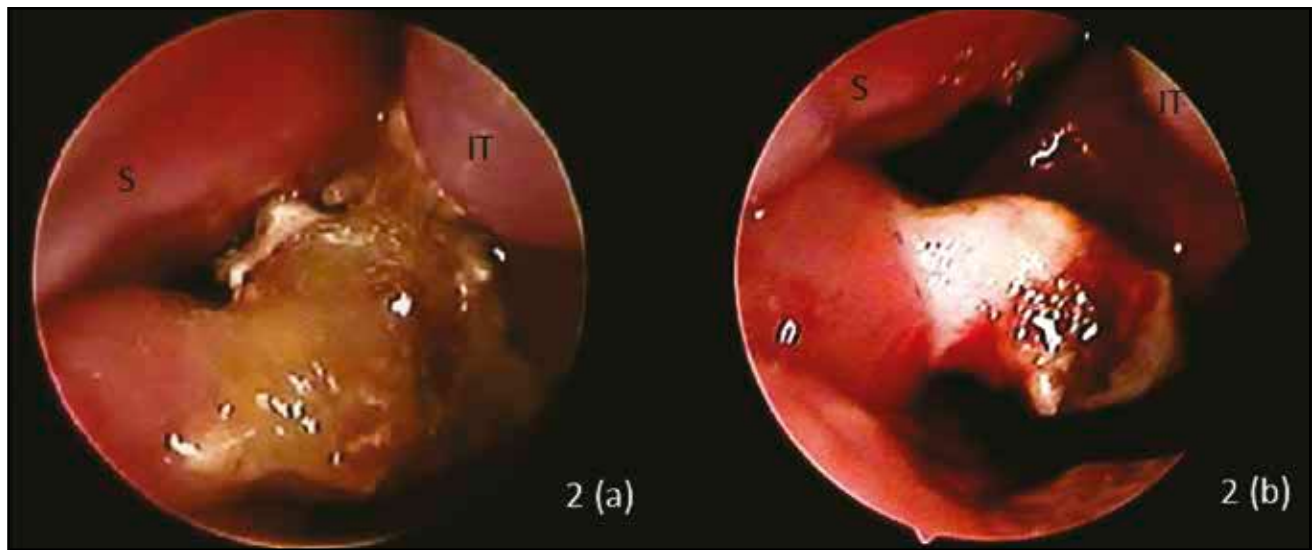
**Figure 1.** Some of the “coral-like” hard concretions collected by the patient.

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**Figure 2.** Endoscopic view of left nostril showing (a) brownish concretions in between the nasal septum and inferior turbinate and (b) whitish tooth-like structure seen erupting from the inferior part of the nasal septum following nasal toilet (S= nasal septum, IT= inferior turbinate).

did not reveal another supernumerary tooth and there was no fistula or embedded root within the nasal septum, floor of nasal cavity or maxillary sinus (Figure 5).

She was well at the subsequent clinic visit and the mucosa of the nasal cavity was completely well-healed after 1 week.

### DISCUSSIONS

Intranasal teeth are a rare clinical entity with incidence of only 0.1 to 1% of the population. It could be an ectopic or supernumerary tooth. Supernumerary teeth, also known as hyperodontia, is an odontostoma-

tologic disorder with presence of excessive number of teeth. A large radiographic study of 921 patients with hyperodontia by Hurlen B et al. showed that it predominantly affects males, permanent dentition, located in the premaxillary central incisor and positioned palatally to the dental arch<sup>1</sup>. The same study also noted that 45.3% of the supernumeraries were malformed.

The aetiology of intranasal tooth is unclear. It could either be an ectopic deciduous or permanent and supernumerary tooth. The possible aetiology for intranasal tooth could either be traumatic or non-traumatic (developmental). There are few developmental theories for development of intranasal supernumerary tooth which include



**Figure 3.** Palatal eruption of right upper lateral incisor (white arrow).



**Figure 4.** The extracted conical shaped supernumerary tooth.



**Figure 5.** Orthopantomogram (OPG) following the intranasal tooth extraction did not reveal the presence of another supernumerary tooth or embedded root.

cleft, Gardner's syndrome and dysostosis<sup>2</sup>.

In the case we presented, the possible aetiology could be congenital malformation although she does not have the typical cleft or craniofacial anomaly. This is supported by her intranasal tooth being supernumerary, conical in shape, with a concomitant contralateral palatal eruption.

The incidence of supernumerary tooth is between 0.1 and 3.8% in the permanent dentition. The incidence is slightly lesser in deciduous dentition, which is 0.3 to 0.6%<sup>3</sup>. Howard has described 4 types of supernumerary tooth which are conical, tuberculate, supplemental and odontomas<sup>4</sup>.

Rhinolith is a calcareous concretion which is formed due to stagnation of nasal secretions and chronic inflammation that leads to deposition of calcium and mineral salts. It can be divided into endogenous or exogenous rhinolith. In our case, it is due to endogenous rhinolith, as the mineral salts concretions formed around the intranasal teeth. Rhinolith has generally been removed via transnasal endoscopy.

The management of intranasal tooth is mainly by tooth extraction. In our case, we were able to achieve complete removal via transnasal endoscopy under local anaesthesia. A good visualization using a rigid nasal endoscope, along with a cooperative patient and adequate topical analgesia, has resulted in a safe and complete extraction of the intranasal supernumerary tooth and the rhinolith.

In a case of suspected rhinolithiasis with underlying intranasal tooth, the workup includes a full history of prior trauma or developmental anomaly, and a complete transnasal endoscopic examination followed by odontogenic examination are mandatory. A minimum radiographic

examination with orthopantomogram or X-ray is needed to screen the dental arch for another concomitant dental anomaly. CT is helpful in a more complex disease such as prior history of palatal repair or trauma, odontogenic tumour or cyst, or if they present with a complication.

## CONCLUSIONS

Rhinolith can coexist with intranasal tooth. A thorough history, examination and investigation are important to identify the underlying aetiology of a rhinolith before embarking on a safe removal via transnasal endoscopy. Extraction under local anaesthesia is an option in managing such cases.

**Conflict of interest:** None

## REFERENCES

1. Hurlen B, Humerfelt D. Characteristics of premaxillary hyperodontia. A radiographic study. *Acta Odontol Scand.* 1985;43(2):75-81. DOI: 10.3109/00016358509046490.
2. Subasioglu A, Savas S, Kucukyilmaz E, Kesim S, Yagci A, Dundar M. Genetic background of supernumerary teeth. *Eur J Dent.* 2015;9(1):153-8. DOI: 10.4103/1305-7456.149670.
3. Diaz A, Orozco J, Fonseca M. Multiple hyperodontia: report of a case with 17 supernumerary teeth with non syndromic association. *Med Oral Patol Oral Cir Bucal.* 2009;14(5):E229-31.
4. Howard RD. The unerupted incisors. A study of post-operative eruptive history of incisors delayed in their eruption by supernumerary teeth. *Dent Pract Dent Rec.* 1967;17(9):332-41.

