The Journal of Laryngology and Otology
November 1985. Vol. **99.** pp. 1147–1150

Nasal tooth

by

M. G. Spencer and A. D. Couldery (Norwich)

A 55-year-old man was referred to the ENT Out-patient Department of the Norfolk and Norwich Hospital with a tentative diagnosis of chronic sinusitis. He was seen in October 1983 and gave a history, extending back for at least two and a half years, of right-sided nasal obstruction, and of occasional cacosmia, frontal headaches and sneezing bouts. Previous treatments had consisted of various nasal sprays, and also of systemic antihistamines and at least one course of oral tetracycline, none of which had improved his symptoms. There was no history of facial pain or swelling, or of rhinorrhoea.

Examination in the clinic revealed a poor right nasal airway, apparently caused through its being obstructed by a hard, white and rigidly fixed mass. A provisional diagnosis of a rhinolith was made and sinus radiography was performed. The latter showed the offending lesion to be a tooth, arising in the right nasal cavity from the superior surface of the hard palate near the midline, just behind the maxillary crest (Fig. 1). The sinuses themselves were clear.

An examination of the nose was performed under general anaesthesia in November 1983, at which the tooth was removed satisfactorily by means of a light tap from a Jenkins' gouge. Apart from a slight deviation of the cartilaginous septum to the left, the nose showed no further abnormality. The ectopic tooth had a triangular crown (Fig. 2) and did not appear to be from the permanent dentition. Examination of the latter was impossible as the patient was edentulous, having had a dental clearance some 15 years previously. Following the extraction, recovery was uneventful and at subsequent out-patient follow-up the patient reported himself as symptom-free.

The origin of intra-nasal teeth is disputed and numerous aetiological factors, including genetic and developmental disturbance, trauma and maxillary infection, have been invoked to account for them. In a review of the literature, to which the authors added two further cases, Smith *et al.* (1979) listed 27 reported instances of this abnormality. The earliest dated from 1897 and the teeth in question were said either to have arisen mostly from the permanent dentition or to have been supernumerary. Supernumerary teeth may occur anywhere in the dental arch, but the most common site is between the maxillary central incisors, in which case the tooth is referred to as a mesiodens. Such a tooth is atypical in appearance with usually a cone-, peg- or triangular-shaped crown. Mesiodens may occur singly or in pairs, or may be multiple, and may be erupted, impacted or inverted. Inversion is accompanied by growth towards the nose, and if this is complete the result is a nasal tooth (Gorlin and Goldman, 1970). In view of the shape and site of the present tooth there seems little doubt that it represents a mesiodens.

The incidence of mesiodens in Caucasians has been disputed (Shafer *et al.*, 1974). In a Swedish study comprising 11,400 children aged between 7 and 15 years, mesiodens were found in 1.4 per cent (Billberg and Lind, 1965). Among those children with mesiodens, 80 per cent had one and 20 per cent had two or three mesiodens. The anomaly was found to be more common in males, the prevalence being around 2 : 1.

An origin in remnants of the normal dental lamina, or in accessory laminae which develop in the early phases of tooth formation, has been postulated (Politzer and Weizenberg, 1955). Inheritance by an autosomal dominant with lack of presentation in some generations has also been suggested (Sedano and Gorling, 1969).

Intranasal teeth may be asymptomatic. They may also present, as in the present case, with nasal obstruction, headache and cacosmia, or with such

https://doi.org/10.1017/S0022215100098327 Published online by Cambridge University Press

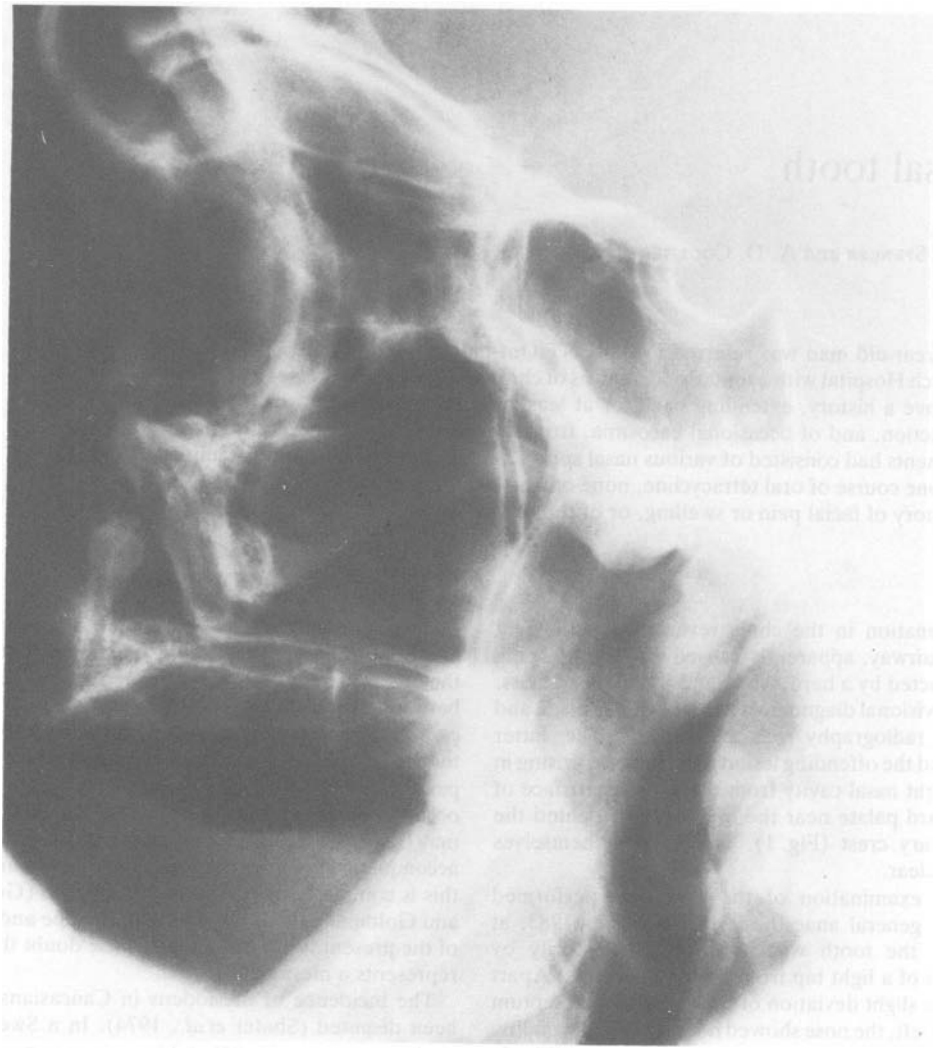


FIG. 1
Lateral radiograph of the nose and paransal sinuses showing a nasal tooth.

https://doi.org/10.1017/S0022215100098327 Published online by Cambridge University Press



FIG. 2

The tooth shown in Fig. 1 after its removal. Note the abnormal shape of the crown and absence of caries. (Scale in millimetres.)

https://doi.org/10.1017/S0022215100098327 Published online by Cambridge University Press

symptoms and signs as facial pain, nasal discomfort, epistaxis, purulent rhinorrhoea and rhinitis caseosa (Smith *et al.*, 1979). They may be confused with such entities as exostoses, rhinoliths (as in the present case), foreign bodies and even tumours. As with the case under discussion, radiology may reveal a well-differentiated tooth; on the other hand it may show only a non-specific radio-opacity. Removal of the tooth is generally advocated and will prevent any complications as well as relieving symptoms.

References

Billberg, B., and Lind, V. (1965) Medfödda antalsvariationer i permenanta dentitionen. *Odontologisk Revy*, **16:** 258–272.

Gorlin, R. J., and Goldman, H. M. (1970) *Thoma's Oral Pathology*, **1:** 113–115.

Politzer, G., and Weizenberg, J. (1955) Normale and abnorme Unterkiefermitte. *Deutsche Zahnärtztliche Zeitschrift*, **10:** 801–812.

Sedano, H. O., and Gorlin, R. J. (1969) Familial Occurrence of Mesiodens. *Oral Surgery*, **27:** 360.

Shafer, W. S., Hine, M. K., and Levy, B. M. (1974) *Textbook of Oral Pathology*, p. 43.

Smith, R. A., Gordon, N. C., and De Luchi, S. F. (1979) Intranasal teeth. *Oral Surgery, Oral Medicine, Oral Pathology*, **47:** 120–122.

Address for correspondence:
M. G. Spencer, M.A., F.R.C.S.,
The Hospitals for Sick Children,
Great Ormond Street,
London WC1N 3JH.

https://doi.org/10.1017/S0022215100098327 Published online by Cambridge University Press