contrast with pleomorphic adenoma of major salivary glands, has little myxoid stroma (Compango and Wong, 1977). Nasal pleomorphic adenoma thus are frequently interpreted as more aggressive neoplasms on the basis of initial biopsy results. Many cases of misdiagnosis of pleomorphic adenoma of the nasal cavity such as squamous cell carcinoma, adenoid cystic carcinoma and adenocarcinoma are reported in the literature (Haberman and Stanley, 1989; Liao et al, 1993). Such misdiagnosis emphasizes the need to obtain a biopsy specimen sufficiently large and from tissue deep enough to include the sparse myxoid stroma, thus enabling the correct diagnosis of Pleomorphic adenoma to be made.

The treatment of choice for pleomorphic adenoma in the nasal cavity is local surgical excision with histologically clear margins (Suzuki et al, 1990). Various surgical approaches depend on size and location of the tumor in the nasal cavity. They include intranasal excision, facial degloving, and lateral rhinotomy. Incomplete excision results in recurrent tumor. Carcinoma arising in the pleomorphic adenoma of the nasal cavity has also been reported (Cho et al, 1995).

The above case illustrates that pleomorphic adenoma can be considered as a rare possibility in the differential diagnosis of nasal tumors and otolaryngologists must be aware of the difficulty of correctly diagnosing initial tissue biopsy specimen in order to guard against unnecessary radical surgery.

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NASAL TOOTH

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INTRODUCTION

Ecotopic and supernumerary teeth occur at a wide variety of sites, The reported sites include the orbit, palate, maxillary antrum, mandibular condyle, coronoid process, nose or through the skin. Tooth eruption in the nasal cavity is rare and easily overlooked. Ectopic teeth may be permanent or deciduous and the permanent ones are usually incisors, but can be canines, pre-molars or molars. In deciduous dentition, the supernumerary tooth is usually a maxillary lateral incisor (Shafer et al, 1974). Approximately, 90% of all supernumerary teeth occur in

the maxilla. Supernumerary teeth in the deciduous dentition are much less common than in the premanent teeth.

A supernumerary tooth originates from the third tooth bud which arises from the dental lamina near the permanent tooth bud. It may or may not resemble the parent tooth either in shape or size and is usually found in greatest frequency in certain sites. It is not unusual for the condition to be bilateral. Supernumerary teeth are much more common than supplemental teeth. The supernumerary tooth found in the incisor region is known as the

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Fig.1 : Specimen of tooth removed.

mesiodens. Peridens is the name given to the supernumerary tooth found in the third molar tooth. The extra incisor teeth may be in a vertical, horizontal or inverted position. Intra-nasal teeth may be single or more than one.

We report a case of nasal tooth in a 30 years old male which was associated with significant symptoms. These were relieved after surgery.

CASE REPORT

A 30 years old army officer presented in ENT Outpatient Department, Government Medical College, Jammu with a 8 months history of facial pain right side and discharge from right side of nose. There was no history of nasal obstruction. Clinical examination revealed mucopus in right floor of nose. After cleaning the discharge, a white object was seen in the right cavity which has a hard feel and was insensitive to touch. An x-ray of the paranasal sinuses showed an opaque foreign body in the right nasal cavity. Under general anaesthesia, the right nasal cavity was explored which revealed granulation tissue on the floor of the nose surrounding the tooth which was removed (Fig. 1) with Luc's forceps. The post-operative period was uneventful. The facial pain persisted for sometime and then completely resolved.

DISCUSSION

The incidence of supernumerary teeth in general ranges from 0.1-1% of the population (Stanley & LaFerriere, 1977). Of these, only a very small percentage develop intra-nasal teeth. From the previous discussion one can see that an intra-nasal teeth is a rare form of supernumerary teeth. The etiology of intra-nasal teeth is controversial. Ectopic teeth may be found related to areas of disturbances of embryonic clefts such as failure of their fusion or the

formation of developmental cysts. In some cases there is a hereditary tendency (autosomal dominant) for the development of supranumerary teeth (Shafer et al, 1974). Ectopic eruption of teeth may be the result of trauma (Long, 1924). Sepsis (Dayal et al, 1981) or developmental abnormalities e.g. cleft palate (Endicott, 1934), teeth displaced by trauma (Long, 1924).

Obstruction to eruption secondary to crowding of dentition, persistent deciduous teeth or exceptionally dense bone can also be the etiological factors in some cases (Hitschler, 1938).

As already described, another theory is that the nasal tooth develops from the third tooth bud which arises from the dental lamina near the permanent tooth bud or possibly from the splitting of this permanent bud. It has also been suggested that the intranasal tooth is a malformation of an evolutionary remnant from extinct primates that had three pairs of incisor teeth (Edwin et al, 1998).

In many cases, as was seen in the present case, no etiological factor can be identified (Smith et al, 1979).

Several conditions are associated with supernumerary teeth with which otolaryngologists would be familiar. First is Gardener's syndrome – an autosomal dominant pattern (Shafer et al, 1974), characterised by multiple impacted supernumerary teeth, polyps of the large intestine, osteomas of the bones, including the skull & jaws and multiple sebaceous cysts of the skin.

Cleido-carnial dysostosis, a rare autosomal dominant trait is another condition associated with supernumerary teeth. It consists of delayed and incomplete ossification of the skull, hyperplasia of the clavicle, delayed and defective dentition and many supernumerary teeth. Bulging forehead and prominent cranial bossing, a poorly developed maxilla and delayed ossification of fontanelle's may also be there (Stanley & La Ferriere, 1977).

The first description of nasal tooth would appear to be John Hunter around 1778 in his manuscript catalogue of a skull said to be that of a negress in which the crown of right maxillary canine projects upwards, forwards and inwards into the right nasal, fossa. In clinical literature (Hitschler, 1938) the condition has been regarded in many races – Eskimoes (Leigh, 1925) Indians (Rao 1953), Japanese (Gato & Toyooka, 1939), Caucasians (Long 1924; Hitschler, 1938) and negros (Bowesman, 1960).

The entity is having high incidence in western Nigeria. Differential diagnosis includes nasal foreign bodies, rhinolith, bony sequestra, neoplasms and exostoses (Smith et al, 1979). A rhinolith can be confused clinically with nasal tooth, but a careful and thorough examination can diagnose the condition accurately. A rhinolith is an irregular mass, brown or greyish in colour usually present near the floor of the nose and feels stony hard with gritty sensation on probing. A rhinolith is very small initially but can be very large. On the other hand, a nasal tooth is white or dark in colour, smooth in outline with no irregularity usually surrounded or sometimes completely covered by granulation tissue. It also feels stony hard on probing. Grossly the nasal tooth has an appearance different from that of a normally developed permanent tooth. The crown is usually more triangular, cone or peg shaped (Edwin et al, 1998).

As per literature (Smith et al, 1979), there appeared to be no sex predilection, no right and left sided predilection, the age of presentation having a wide range of 3 to 62 years and with no direct involvement of another family member (Martinson and Cockshott, 1972). In this case, the patient was not having any symptoms before 8 months and hence was diagnosed late.

An intra-nasal tooth may be entirely asymptomatic or may present with symptoms and signs such as facial pains, a feeling of something in the nose, nasal obstruction, nasal discharge (foul smelling), headaches, cacosmia, recurrent epistaxis, nasal congestion, mild fever, rhinitis caseosa, external deviation of the nose, crusting of the nasal mucosa and naso-oral fistula (Smith et al, 1979). The diagnosis of the nasal tooth is done by thorough and careful clinical examination and radiological evaluation. Intranasal teeth may be seen on plain X-ray films with panoramic films, occulsal X-ray films or other facial X-ray films. However, these patients present with sinonasal symptomatology, which often requires computed tomography to exclude the other conditions. Examination with fiberoptic assistance is also helpful. After thorough searching of the literature, no histopathological test has been found for diagnosing nasal tooth. Hence it was not done in this case also.

Treatment of the intranasal tooth is usually surgical removal. The timing of the tooth removal should be after the roots of the surrounding permanent teeth have formed completely, so as to avoid injury to the permanent dentition (Martinson & Cockshott, 1972). Without removal, symptomatic patients will most likely have recurrent

problems, and asymptomatic patients may well become symptomatic with time. Another argument for excision is the potential for more serious sequelae (e.g. deep fascial space abscess) because the nasal tooth lies in the area of the "danger triangle" of the midface. Other reasons for removal are impaction of permanent incisors; separation of permanent teeth, and cyst formation (Murty et al, 1988). The tooth is often excised as part of the diagnostic examination of an obstructive unilateral nasal mass which is both diagnostic and therapeutic.

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