CASE REPORT

Incisive canal cyst - A case report
Tejavathi Nagaraj, Sita Gogula, C. K. Sumana, Haritma Nigam
Department of Oral Medicine and Radiology, Sri Rajiv Gandhi College of Dental Sciences and Hospital, Bengaluru, Karnataka, India

Abstract
The most common nonodontogenic cyst of the oral cavity which is developmental in origin, intraosseous and non-neoplastic in nature is nasopalatine cyst also called incisive canal cyst. The present case is about a 28-year-old male patient. Incisive canal cysts are normally diagnosed on routine radiological examination. They normally develop in the midline of the anterior maxilla. Usually, these cysts are asymptomatic. This article reports with the review of literature with respect to epidemiology, clinical features, radiographic features, histopathology, treatment, and recurrence rates.

Keywords: Incisive canal cyst, nasopalatine duct remnant, nonodontogenic in origin

Introduction
In 1914 Meyer described the nasopalatine cyst for the first time.\(^1\) It is also termed as incisive canal cyst. They commonly develop in the anterior maxillary region usually in the midline near the incisive foramen. They usually develop from the remnants of embryonic nasopalatine duct.\(^2\,^3\) According to the WHO, it is defined as developmental, epithelial, and nonodontogenic cysts of the maxilla along with nasolabial cysts.\(^3\)

Normally, these cysts are asymptomatic, and if symptoms are present, they are tolerable for a long time. Numbness is present when the cyst exerts pressure on the nasopalatine nerves.\(^4\) Clinically swelling is present posterior to the incisive papilla.\(^5\)

Case Report
A 28-year-old male patient reported to the department with chief complaint of pain in the lower right back tooth region since 1 week. On clinical examination, there was deep dental caries i.r.t to 46 with the tender on percussion. There was a swelling i.r.t 46 attached gingival with vestibular tenderness suggestive of the periapical abscess with the establishment of sinus tract.

There was an Ellis class 3 fracture i.r.t 12 and Ellis class 2 fracture i.r.t to 11. Advised IOPAR i.r.t 46, 11, and 12. As shown in Figure 1 and Figure 2 (profile view and intra oral picture).

Intraoral radiograph revealed a solitary well-defined radiolucency in the midline i.r.t to 11 and 21 measuring about 2 cm × 1 cm approximately suggestive of incisive canal cyst as shown in Figure 3. As the cyst was asymptomatic patient was not willing for further treatment.

Discussion
About 10% of the cyst of the jaw includes nasopalatine cysts. This cyst has a broad age distribution and commonly diagnosed during the 4-6\(^{th}\) decade of life.\(^4\,^6\) The etiology of the nasopalatine cyst is unknown. Women have more prevalence of these cysts in the ratio of 3:1 when compared to men.\(^8\) Trauma, bacterial infections are considered to be one of the etiological factors for

Figure 1: Profile view
Incisive canal cyst

Nagaraj, et al. Incisive canal cyst

Serous or mucous. Pus discharge is seen when it is secondarily infected.\(^{10-12}\)

Histopathologically epithelium consists of stratified columnar epithelium and simple cubic epithelium, stratified, squamous, non-keratinized epithelium, false stratified columnar epithelium, or any of the combination.\(^{13}\)

Differential diagnosis: Incisive canal cyst may be misdiagnosed as periapical cyst due to similar signs and symptoms when the cyst is infected. Large incisive canal cysts are well defined, round or oval or heart-shaped involving the roots of the incisors radiographically but lamina dura is usually intact, and the pulp is vital, whereas in radicular cyst pulp is nonvital and loss of continuity of the lamina dura is present.\(^{14}\)

References


