

# Research & Table Clinic Day 2020 Structured Abstract

**TITLE: Surgical Management of the Nasopalatine Canal**

## **PRESENTER**

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Level: **DENTAL RESIDENT - PERIO**

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**IS THIS A COMPETING PRESENTATION: NO**

**SELECT RESEARCH / SCHOLARLY TOPIC: CLINICAL (Techniques, treatments, involves patients)**

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**TITLE:** Surgical Management of the Nasopalatine Canal

**OBJECTIVES:** The nasopalatine canal can pose an obstacle when placing implants in the anterior maxilla and is the most common site for non-odontogenic cysts. This clinical topic sought to present two clinical cases involving surgical techniques involving this important anatomical canal space.

**METHODS:** A review of literature was performed in order to explore the following factors:

1. Normal anatomy of the nasopalatine canal based on CBCT studies
2. Case studies that address implant placement when complicated by the position of the nasopalatine canal
3. Nasopalatine duct cysts

Two surgical cases were documented:

1. Obliteration of the nasopalatine with immediate implant placement in the maxillary central incisor position
2. Removal of a nasopalatine duct cyst

**RESULTS:** On average, the nasopalatine canal is one centimeter long and can have various morphologies. Age, sex, ethnicity, tooth loss, trauma, and pathology can account for variability in the size. If the nasopalatine foramen is less than six millimeters in diameter, it is considered normal anatomy. Epidemiology indicates that one percent of patient will present with a nasopalatine duct cyst. Also, four percent of patients who desire implants in the maxillary central incisor position will be complicated by the size and position of the nasopalatine canal. Case studies demonstrate the obliteration/lateralization of the nasopalatine neurovascular bundle in order to facilitate placement of a restoratively driven implant. These procedures result in a low incidence of paresthesia.

**CONCLUSIONS:** Understanding the anatomy of the nasopalatine canal is important for treatment planning maxillary anterior implants and identifying pathology. Obliteration/lateralization of the nasopalatine canal is a viable treatment option when its size and position complicates the placement of maxillary anterior implant placement. If pathology is identified, surgical excision followed by histologic evaluation is the treatment of choice.

**LEARNING OBJECTIVES:**

1. To review the nasopalatine canal anatomy
2. To understand the clinical indications for nasopalatine canal obliteration/lateralization
3. To become familiar with removal of nasopalatine duct cysts