Palatal Perforation: Causes and Features

Author(s): Dr. Pegah Mosannen Mozaffari, Dr. Seyyed Amir Seyyedi, Dr. Maryam Amir Chaghmaghi

Corresponding Author: Dr. Pegah Mosannen Mozaffari, Assistant Professor of Oral Medicine, Oral and Maxillofacial Research Center, Oral Medicine Department, Mashhad University of Medical Sciences, School of Dentistry, Vakilabad Blvd, Azadi Sq, Mashhad, Khorasan Razavi Province, Iran P.O.Box: 9844, 91735 - Iran (Islamic Republic of)

Submitting Author: Dr. Pegah Mosannen-Mozafari, Assistant Professor of Oral Medicine, Oral and Maxillofacial Research Center, Oral Medicine Department, Mashhad University of Medical Sciences, School of Dentistry, Vakilabad Blvd, Azadi Sq, Mashhad, Khorasan Razavi Province, Iran P.O.Box: 9844, 91735 - Iran (Islamic Republic of)

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Palatal Perforation: Causes and Features

Classification

Here we explain potential causes of palatal perforation and demonstrate some features.

1. Developmental:
   During the sixth week of prenatal period, palatal shelves coalesce to form the hard palate. Failure to this integration results in *cleft palate*.(Illustration 1)

   Some syndromes, maternal alcohol consumption and cigarette smoking, folic acid deficiency, corticosteroid use and anticonvulsant therapy are some causative agents for this abnormality. (1)

   Sometimes an elderly edentulous denture wearer complains of a perforation in his/her palate. Due to bone resorption a previously impacted canine may emerge in the form of a palatal perforation. An orthopantomograph can easily reveal the impacted tooth.(Illustration 2)

2. Infectious:
   There are some infections resulting in palatal perforation. In *leprosy, tertiary syphilis, tuberculosis, rhinoscleroderma, naso-oral blastomycosis, leishmaniasis, actinomycosis, histoplasmosis, coccidiomycosis* and *diphtheria* The palatal roof may be perforated.(2-3) (Illustration 3)

3. Autoimmune:
   There are some autoimmune diseases which results in palatal perforation. Examples are *lupus erythematous, sarcoidosis, Crohn’s disease* and *Wegener granulomatosis*.(4)

4. Neoplastic:
   Different tumours can extend from maxillary sinus or nasal cavity and perforate the palate. Although these neoplasms usually form a mass, but in advance cases perforation of palate may occur in course of disease or following treatment(5)

5. Drug related:
   Palatal perforation due to *cocaine* abuse is a well-known situation. Other drugs (*heroin, narcotics*) can be responsible for palatal perforation.(6-7)(Illustration 4)

6. Iatrogenic:
   Sometimes following a tooth extraction an *oro-antral fistula* remains.(Illustration 5). Other procedures such as tumor surgery(*maxillectomy*), corrective surgeries(e.g.*septoplasty*) or intubation can cause palatal perforation.(8)

7. Rare causes:
   Rhinolith can result in palatal perforation. Patients with psychologic problems may present with a fictitious palatal perforation.(Illustration 6)

Abbreviation(s)

None

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Illustrations

Illustration 1

A cleft palate in an adolescent

Illustration 2

A: an elderly edentulous patient complaining of a perforation in palate. B: cone beam computerized scanning (CBCT) shows the impacted canine tooth. Look at caries of the tooth due to prolonged crown exposure to oral cavity.
Illustration 3

A patient with a history of leprosy. Look at depression of nasal bridge (A) and palatal perforation (B).

Illustration 4

A patient with a long history of drug addiction to TARYAK (kind of inhaled natural opioid).
Illustration 5

Oro-antral fistula following maxillary molar extraction

Illustration 6

A factitious palatal perforation in a psychotic patient. He denied any manipulation at the first visit.
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