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Oronasal Fistula Due to the Unsuccesful Tooth Extraction 18 Years Ago.

Vucicevic Boras V[1*], Gabric Panduric D[2], Susic M[2], Seiwerth S[3], Mlinaric Missoni E[4], Lauc T [5].

[1]Department of Oral medicine, School of Dental medicine, University of Zagreb and Clinical Hospital Center Zagreb, Kispaticeva 12, Zagreb, Croatia.
[2]Department of Oral surgery, School of Dental medicine, University of Zagreb and Clinical Hospital Center Zagreb, Kispaticeva 12, Zagreb, Croatia.
[3]Department of Pathology, Clinical Hospital Center Zagreb, Kispaticeva 12 , 10 000 Zagreb, Croatia.
[4]CNIPH, Microbiological Service, Rockefellerova 2, Zagreb, Croatia
[5]Private dental laboratory, Ilica 19, 10 000 Zagreb.

ABSTRACT

The female patient 65 years old presented with an ulcer located in the frontal part of the hard palate. Surgical exploration was performed and tip of the tooth root was found in the area. At the same time, oronasal communication was seen. Patohistological analysis showed subchronic inflammation and Aspergillus hyphae. The patient was immunosuppressed as she suffers from Takayashu syndrome and takes every other day 4 mg of methylprednisolone. We were concerned about finding of Aspergillus hyphe and we took mycological smears which turned out negative for Aspergillus. In this specific case, pathohistological finding of the fungal species was not accurate unlike mycological one.

Keywords: oronasal fistula, tooth, palate

Corresponding author

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LETTER TO THE EDITOR

We report an unusual case of oronasal fistula which occurred 18 years after the tooth has been unsuccesfully extracted. The female patient 65 years old presented with an ulcer located in the frontal part of the hard palate. Clinically the lesion appeared as ulceration, however on the palpation it seemed that something hard was inside. Surgical exploration was performed and tip of the tooth root was found simoultaneously when biopsy was performed (Picture 1). Histopathological analysis showed chronic inflammation, remnants of the tooth as well as Aspergillus hyphae. Otherwise, the patient suffered from Takayashu syndrome and was taking methylprednisolone every other day 4 mg therefore she was immunosupressed so we were concerned whether she might have aspergillosis. Additionally, on the third visit fungal swabs were taken from the ulcer on the palate and from nasal cavity in order to exclude aspergillosis. However, finding showed only presence of candidal infection. Histopathological analysis showed subchronic inflammation mostly consisting of mononuclear inflammatory infiltrate, remnants of the tooth, and parts of the bone as well as hyaline septate hyphae, suggestive to hyphae of *Aspergillu*s species. Otherwise, the patient suffered from Takayashu syndrome and was taking methylprednisolone (Medrol® 4 mg/day) therefore she was immunosuppressed so we were concerned whether she might have aspergillosis. Additionally, on the third visit fungal swabs and biopsy of nasal mucosa were taken in order to exclude aspergillosis, however, finding showed only presence of *Candida* infection. Fungal isolation was carried out using Sabouraud's glucose agar and Brain-Heart Infusion agar (BD Diagnostics). The ID32C method (bioMérieux) and morphology on cornmeal agar (BD Diagnostics) were used for the identification of *Candida albicans* isolate from biopsy sample. *In vitro* susceptibility profiles of *C. albicans* isolate to flucytosine, amphotericin B, fluconazole, itraconazole, and voriconazole were determined by ATB FUNGUS 3 (bioMérieux) microdilution method, while the results were interpreted according to EUCAST recommendations. On the basis of minimal inhibitory concentrations (MICs) *C. albicans* isolate was susceptible to all tested antifungal agents. CBCT was taken as well and the finding showed that wide oronasal fistula exists. From time to time patient experienced pain in the upper right side of the maxilla. She was sent to x-rays of the maxillary sinuses few times and the medical doctor concluded that she had sinusitis and was prescribed antibiotics (amoxicillin trihydrate and clavulanic acid, Klavocin® for 10 days). At the end it seems that tip of the tooth was placed in the maxilla during the extraction of the tooth 11 which occurred 18 years ago and which resulted in bone sequestration and tooth as well. Apart from immunossuppressive therapy the patient was taking antihypertensive medications (Valsacor 160 mg (valsartanum), Valsacombi 160/12 (valsartanum and hydrochlorothyazide), Concor 5 mg (bisoprolol fumarate) and Embrantil 90 mg (urapidilum).

Differential diagnosis of the ulcer of the hard palate clinically included necrotizing sialometaplasia, anesthetic necrosis, Behcet's syndrome, traumatic ulcer, squamous cell carcinoma, traumatic granuloma, deep fungal infections (histoplasmosis, blastomycosis), Wegener's granulomatosis, extranodal NK/T-cell lymphoma (nasal-type), noma, tertiary syphilis, tuberculosis, sarcoidosis[1].

Therapy for candidal infection was given by medical doctor (Fluconazole tablets (50 mg) during 7 days) to the patient, ulcer/fistula was covered using soft intraoral bandage (Reso-Pak, HagerWerken, Duisburg, Germany) and she already had total upper denture

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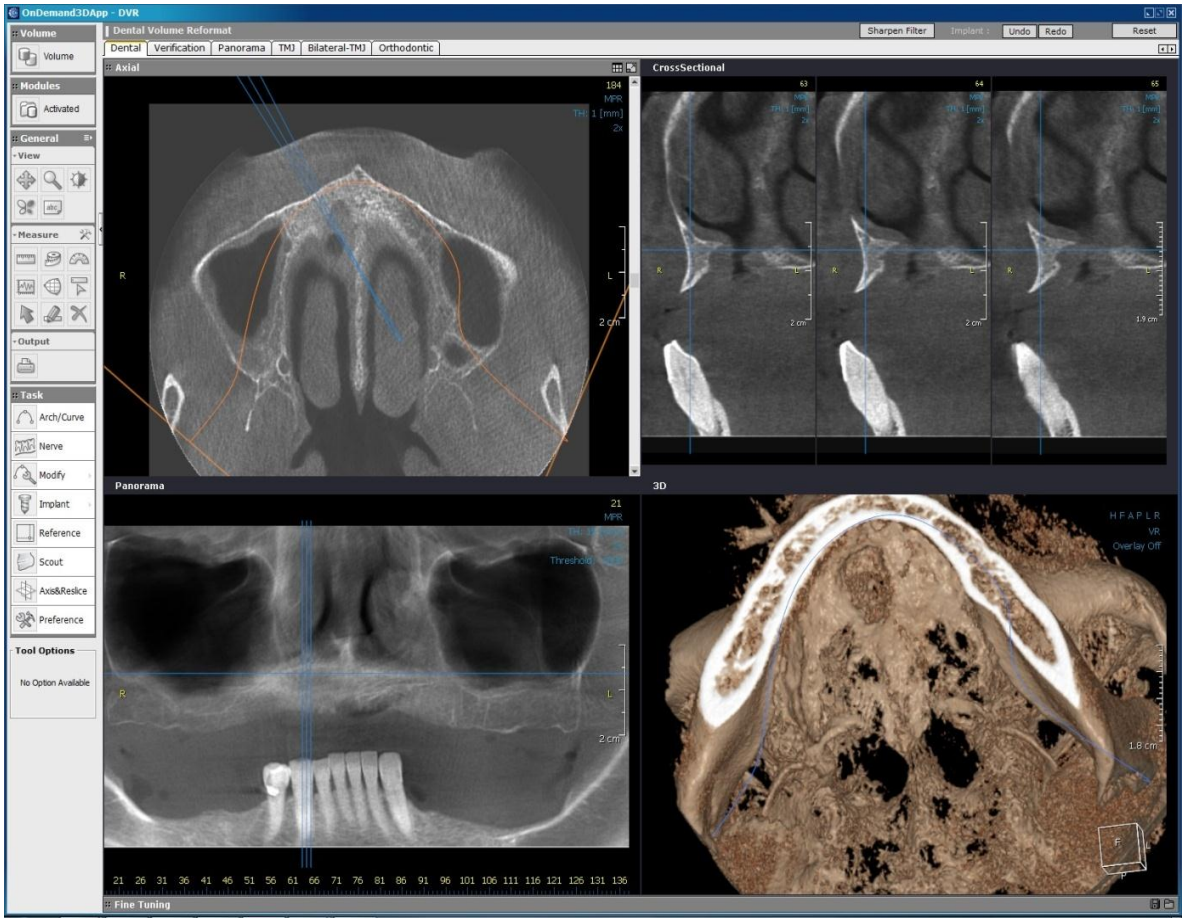
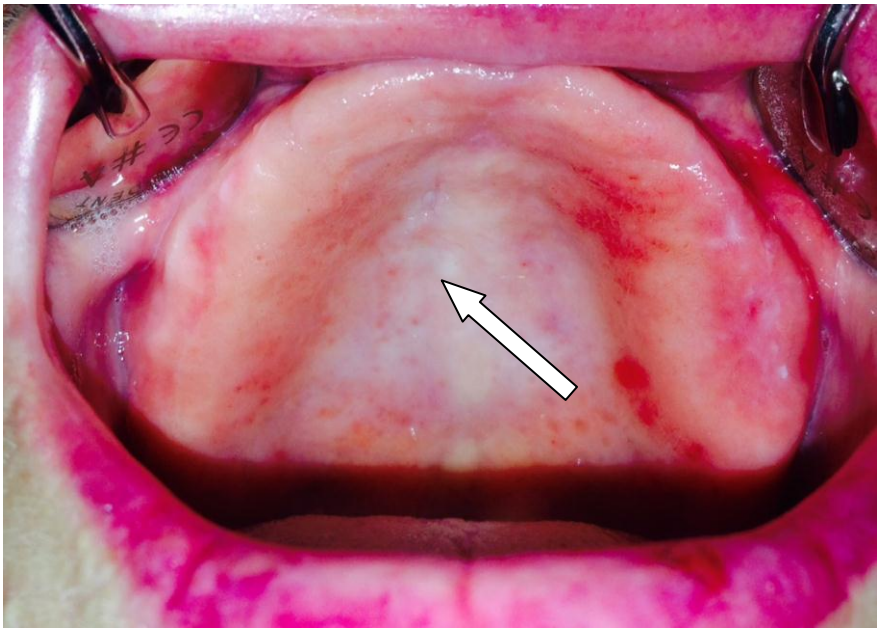
which promoted healing. It took five months for oronasal fistula to heal and this was also consequence of patients immunosupressive therapy, albeit without additional surgical intervention for fistula closure (Picture 2).



Picture 1. CBCT after the extraction of remnant tooth tip and presence of oronasal communication.



Picture 2. Closure of oronasal fistula after five months.

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