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# THE DIAGNOSIS AND TREATMENT CYSTS OF MAXILLARY SINUS

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**Abstract**
Maxillary sinus cysts are distinguished by the fact that they are a common form of chronic sinusitis. From a clinical point of view, cysts are asymptomatic and in 80% of cases they are a finding on X-ray examination. The origin of cysts is usually associated with a chronic inflammatory process. They are formed as a result of exudation of secretory glands due to inflammation of the mucous membrane. The results of clinical, laboratory and immunological examination of patients with cystic lesions of the upper jaw presented in the literature indicate the general mechanism of the pathogenesis of the disease and the involvement of cellular immunity at the level of the mucous membrane. nasal cavity, as well as immunopathological mechanisms manifested by bacterial sensitization. The main complaint of patients with cysts of the maxillary sinuses is a periodically occurring dull headache, which is observed in the forehead or on the side of the maxillary sinus where the cyst is mainly located. In very rare cases, patients complain of pain in the neck, head, temples, and a feeling of heaviness in the head. Modern medical technologies make it possible to treat chronic sinusitis with minimal tissue damage. Thus, endoscopic removal of a cyst in the maxillary cavity is an effective and acceptable method of surgical treatment of this disease, which involves complete removal of the cyst shell, non-injury to the mucous membrane of the cavity, and allows for a correct assessment of the condition of the mucous membrane and sinus anastomosis.

**Keywords:** maxillary sinus cysts, treatment, diagnosis, method, injury.

## Introduction

Cystic lesions of the maxillare benign entities with both odontogenic and non-odontogenic origins. Given the etiologic diversity and forms of pathological lesions of the maxillary bone, cysts have existed over time in many of these classifications. The most recent classification of the World Health Organization (WHO), updated and published in 2021, provides a good systematization of these

entities. The developmental cysts are divided into odontogenic cysts (keratocyst, follicular cyst, cyst rash, lateral periodontal cyst, gingival cyst of the adult, gingival cyst (alveolar) of new-born, calcified odontogenic cyst, glandular odontogenic cyst) and non-odontogenic cysts (nasopalatine cyst, median palatal cyst, nasolabial cyst, globulomaxillary cyst). Inflammatory cysts are represented by the radicular cysts, residual cysts or paradental cysts [3].

**Materials and Methods**

The nasolabial cyst is an extremely rare cystic mass, located paramedianly to the wing of the nose, in the nasal alar region, with an incidence of 0.7% [4]. Nasolabial cysts are diagnosed frequently in female adults, in the fourth to fifth decade of life. From a clinical point of view, the lesion presents as a painless asymptomatic swelling in the nasolabial region. Common clinical features include a slowly growing painless mass, which results in the obliteration of the nasolabial sulcus, nasal vestibule and maxillary labial sulcus. The initial diagnosis and treatment are usually made in early stages because the lesion causes cosmetic problems; rarely does it achieve large dimensions.

**Results and Discussion**

A 45-year-old female patient referred to us for upper lip region swelling associated with the obliteration of the right nasolabial sulcus, asymmetry in the nasal valve aria and nasal obstruction. The swelling and tumefaction were evident for approximately 5 years, over which time the symptoms presented a slow progressive evolution.

On examination, the lesion was approximately 4 cm in diameter, with a soft and cystic consistency, mobile and fluctuant on palpation. Fullness of the right maxillary labial vestibule was present, between the maxillary incisors and right canine. The overlying skin and oral mucosa were normal in colour.

The anterior rhinoscopy and the nasal endoscopy revealed a partial deformation of the anterior part of the floor of the right nasal fossa.

The cranio-facial MRI showed a rounded, well-demarcated, homogeneous, low-density soft tissue lesion located in the right nasolabial region; characteristics of fluid mass in T1 (low intense) and T2 (bright) views.

The surgical treatment consisted in the removal of the cystic formation through sublabial approach, under general anaesthesia. A 5-cm incision was performed through the right gingivo-jugal sulcus, the cystic formation was dissected up to

the piriform aperture and separated from the labial mucosa, the overlying skin and the nasal mucosa.

Even if they have different origins, the multiple types of maxillary cysts show a similar clinical picture; differentiation is induced by location, expansion, growth direction, or the occurrence of complications. Research on the genesis of the maxillary cyst starts with the medical history, that gives us data about the existence or not of symptoms onset (acute inflammatory phenomena, mucous or cutaneous fistulas, pain, paresthesia, bone deformities, etc.) and their characteristics. Then, the clinical examination gives complementary means of diagnosis.

Many radicular cysts are symptomless, being discovered when periapical radiographs are performed[8]. Radicular cysts are probably the most common cause of swelling of the jaws and usually have a progressive slow evolution. At first, the enlargement is bony hard but as the cyst increases in size, the covering bone becomes very thin. Expansion of the cyst can cause an erosion of the floor of the maxillary sinus. The internal structure of the cyst is homogeneous and radiopaque relative to the sinus cavity.

It is very rare to encounter odontogenic cysts that have reached a very large size like in our presented case. Indeed, the odontogenic keratocyst (OKC), dentigerous cyst and traumatic bone cyst might reach such exceptional wideness. In general, radicular cysts tend to grow slowly and do not reach large sizes. However, they may enlarge to occupy an entire quadrant of the jaws. The cyst in our case reached very large dimensions by invading a major part of the left maxillary sinus. Radicular cysts are discovered either by bone deformation and inflammation, or, like in our case, by chance, during routine radiographic examination.

## Conclusion

From our point of view, the two cases we presented are relevant because of the lack of clinical symptoms and the presence of important bone lesion. Through this presentation we sustain the necessity of the radiologic information, especially CT or MRI scans, in order to have a complete correlation between the extension of the lesion, the nasal and sinus cavity and the teeth. This information is crucial in order to recommend the proper surgical treatment technique. A complete removal of the cystic mass is needed to prevent recurrences.

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