# Sphenoid Sinus Adenoid Cystic Carcinoma

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# **SUMMARY**

**Introduction:** The sphenoid adenoid cystic carcinoma is a rare malign neoplasm, in the head and neck and when

located in the paranasal sinuses, it is formed in the minor salivary glands. It grows slowly and is characterized by a large invasion of the adjacent tissues, and also has a large capacity of metastasis.

The surgery associated with post-operative radiotherapy is used as treatment.

**Objective:** To describe a case of sphenoid sinus adenoid cystic carcinoma in a male, black, 62 year patient.

Case Report: N.L.B., 62 years of age, male, had bloody rhinorrhea for 6 months associated with bilateral nasal

obstruction. The nasofibroscopy showed lesion of polypoid aspect in the left nasal cavity. He was submitted to biopsy and the anatomopathological exam showed adenoid cystic carcinoma and the

patient was forwarded to oncology.

Conclusions: The importance of conducting the differential diagnosis between chronic nasosinusal infection and

nasosinusal tumors.

**Keywords:** carcinoma, adenoid, cystic, sphenoid sinus.

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## INTRODUCTION

The nose and paranasal sinuses cystic adenoid carcinoma represents a great defiance for the early diagnosis and precise treatment. They correspond to 1% of the head and neck region malignant tumors (2,6,8), and are uncommon in the sphenoid sinus (2%) (9). The tumor has a low growth, however the neural invasion, remote metastases and multiple recurrences are common (1,7,8). The female sex is the most affected and its peak of incidence occurs in the fifth decade (1,3,6,8). The choice treatment is the radical surgery and post-operative radiotherapy (8). This is a report of a case of sphenoid sinus cystic adenoid carcinoma in a black, 6-year-old man.

# CASE REPORT

NLB, a male, black, 62-year-old patient sought the otorhinolaryngology service with a six-month history of self-limited and of slight quantity bloody rhinorrhea. Associated with the case, he mentioned bilateral sporadic nasal obstruction which worsened with the exposure of environmental allergens, as well as sneezes and coryza. He denied nasal pruritus. The exam presented a septum deviation to the left associated with lower infundibula hypertrophy. The nasofibroscopy confirmed a polypoid aspect tumor in the left nasal cavity with suggestive insertion to the septum and spheno-ethmoidal recess. The face sinuses computerized tomography showed an image of soft parts density that occupied a large part of the left nasal cavity, septum back wall, ethmoid sinus, and invading the frontal wall of the left sphenoid with bone erosion signals (Picture 1). The patient was submitted to intranasal endoscopic biopsy. We could observe the left sphenoid front wall invasion, which was friable and the tumor invading the sphenoid floor with approximately 0.3 cm away from the left internal carotid impression. The patient evolves without intercurrences with hospital discharge.

The anatomopathologic exam revealed cystic adenoid carcinoma.

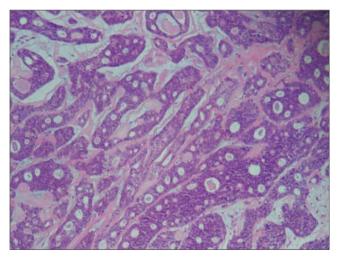
The patient was forwarded to the oncology service.

#### DISCUSSION

In the course of this century, three histopathologic variants of the Cystic Adenoid Carcinoma were found, and the solid pattern has a more aggressive clinical evolution (1,3,5,6).



**Picture 1.** Coronal cut face TC - Image of soft parts density that occupies a large part of the left nasal cavity, septum back wall, ethmoid sinus, and invading the frontal wall of the left sphenoid with bone erosion signals.



**Picture 2.** Blade picture - Histological cut showing: the hyalinized conjunctive tissue stroma, with tubular aspect. (HE x 100).

It occurs more frequently between the fourth and the seventh decade of live with a peak in the fifth decade, which coincides with the age of our patient, and the female sex is the most affected in the proportion (2,5: 1) (5), diverging from the sex of our case. The most affected parts are the minor salivary glands and the submandibular glands (1,3). The cystic adenoid carcinoma is an uncommon tumor on the sphenoid (9).

Some important factors for the prognosis of the

Cystic adenoid carcinoma are: anatomic location, size, involvement or not of adjacent structures, cellular atypia grade, surgical margins and the presence of metastasized ganglions (1,2,4,6).

The diagnosis delay has been ascribed to the disease's symptoms that frequently take the aspects of chronic sinusitis (2,4).

In the diagnosis, the preoperative and postoperative staying and evaluation, the magnetic resonance and the computerized tomography of these lesions play a basic role, and define the neoplasm anatomic extension and the adjacent structures integrity (2,4,5).

The Cystic adenoid carcinoma treatment consists of four distinct modalities: surgery, radiotherapy, chemotherapy and combined therapy (5). The treatment with surgery and postoperative radiotherapy (4,7), compared to those only treated with surgery, has been presenting better results (1). The benefit with the use of chemotherapy is not yet defined (4).

In this case, there was large tumor lesion, whose surgical exeresis was impracticable due to the oncologic safety margins, then lesion biopsy was carried out and the patient was forwarded for radiotherapy. After 2 years of treatment the patient presented no recurrence.

As far as our case is concerned, we considered the importance to perform the differential diagnosis between nasosinusal chronic infection and nasosinusal tumors.

#### FINAL CONSIDERATIONS

The cystic sphenoid carcinoma is an uncommon tumor. Therefore, patients older than 50 years, with chronic sinusitis symptoms and paranasal sinuses tumor must recall the cystic adenoid carcinoma as a diagnostic possibility.

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