Reporte de Caso – Case Report

Sinonasal papilloma and aspergillosis in a diabetic patient*

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*[Papiloma sinonasal y aspergilosis en un paciente diabético].

Resumen
Describimos un caso de paciente con diabetes mellitus complicado una aspergilosis y papiloma sinonasal.
Palabras claves: diabetes mellitus, aspergilosis, papiloma, sinonasal. *Rev Soc Med Quir Hosp Emerg Perez de Leon* 2007; 38(2):37-39.

Abstract
We described a case complicated with an aspergillosis of the sinonasal papilloma in a diabetic patient.
Key Words: diabetes mellitas, aspergillosis, papilloma, sinonasal. *Rev Soc Med Quir Hosp Emerg Perez de Leon* 2007; 38(2):37-39.

Introduction

Aspergillosis of the sinonasal tract has four basic clinicopathologic presentations depending on the mucosal or extramucosal involvement by the fungus. Two are saprophytic (aspergilloma and allergic *Aspergillus* sinusitis) and two are infectious (chronic indolent and invasive fulminant sinusitis) [1,2].

Tissue-invasive and angioinvasive aspergillosis can be a rapidly lethal disease, particularly in the immune-compromised host. The allergic form of paranasal sinus aspergillosis is presumed to be initiated by hyperreactivity to fungal antigens [1,2].

Not all allergic fungal sinusitis is associated with *Aspergillus* species, and culture confirmation is necessary to distinguish the fungal agent. Surgical removal of the offending fungus is the mainstay of therapy in all forms of sinonasal aspergillosis and other fungal sinusitis. Antifungal agents and steroids complement surgical removal, depending on the form of the sinusitis [1,2].

Benign sinonasal neoplasms are a pathologic and clinically varied group of tumors. The evidence that the human papillomavirus is involved in the development of benign and malignant sinonasal lesions has been demonstrated in many studies [3-8]. Secondary infections (bacterial, fungal or viral) could complicate these lesions. In this case we described a case complicated with an aspergillosis of the sinonasal papilloma.

Case Report

A male, 54 years-old, with a long history of diabetes mellitus type 2, consulted with complaints of bilateral nasal obstruction.

He referred a turbine resection and nasal septoplasty, 2 months ago.

He presented at the physical examination with nasal edema, blush, pain, leucocytosis and neutrophilia.

Laboratory tests showed no significant alterations (including an HIV-1 and -2 ELISA negative).

At that moment was decided to admitted him for surgical drainage. Surgical evaluation shown irregular firm grey fragments with a size of 0.3 and 1.3 cm.

Proper samples were taken for histopathological and microbiological evaluations (including cultures).

The histopathological evaluation revealed irregular hyphae with bulbous forms identified in association to the nasal papilloma, dichotomous branching septate hyphae (oriented in 45º), conidiophores and fructiferous bodies were observed. The organism was identified as *Aspergillus flavus*.

Patient begins to receive itraconazole (200 mg po bid) as joint antifungal therapy with significant clinical improvement after couple weeks of treatment.

Discussion

Aspergillosis continues to be a devastating disease entity that results in significant mortality in immunosuppressed patients, including patients with diabetes and malignancies [2,9,10].

Aspergillosis belongs to the group of mycotic diseases of paranasal sinuses. The invasive forms, and particularly the fulminant forms, are potentially fatal. Isolated aspergillosis of the sphenoid sinus or the clivus is a difficult diagnosis, since the often misleading clinical manifestations of this rare disease develop late. These patients become apparent by neurological signs such as cavernous sinus syndrome, pseudotumor of the pituitary or the orbit. Diagnosis is often made intra-operatively or on histological examination.We report a case of invasive aspergillosis uniquely involving the sellar area revealed by clinical features suggesting a pseudotumor of the pituitary. Although such lesions are almost always seen in immune suppressed subjects, in our case, the patient was immune competent and had no past history of sinusitis.The question of whether, and when to perform limited or extensive surgery remains an issue for discussion, owing to the rarity of this disease honed by lack of experience. It depends on several factors: the kind of disease, the immunity, the subtype of invasive fungal sinusitis and the degree of tissue invasion [2,11].

Paranasal aspergillosis is a potentially progressive continuum of disease, classically described as having four forms: allergic, non-invasive, invasive, and fulminant. The first two have been considered together as extramucosal disease whilst the latter two are both variants of tissue-invasive disease. Sphenoid aspergillosis, given its anatomical location is a more aggressive disease than that found affecting the other paranasal sinuses, even when non-invasive, and may be fatal. This is compounded by the fact that diagnosis is difficult and so may be made late when aspergillosis is consequently more advanced. Intracranial extension may occur via the direct spread of invasive disease or along communicating veins despite intact sinus walls and lack of fungal mucosal penetration. Once this occurs mortality is high. Some authors have reported to successfully treated cases of destructive sphenoid aspergillosis with surgery and adjuvant anti-fungal chemotherapy including itraconazole. Then, authors have recommend the use of post-operative itraconazole in all cases of sphenoid sinus aspergillosis. Additionally, when there is evidence of spread to the brain or other adjacent structures we would advocate an initial course of intravenous amphotericin B followed by long-term oral itraconazole [2,12].

After an extensive literature review we found no previous cases of sinonasal papilloma and aspergillosis in diabetic patients as we report herein.

As was presented, proper surgical management is a priority with a joint intense antifungal treatment to warrant survival and best patient outcomes [1-12].

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