CASE STUDY

Nasolabial Fold Lymphadenopathy Secondary to Fungal Rhinosinusitis∗

Adenopatía nasogeniana secundaria a rinosinusitis fúngica

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Clinical Case

We present the case of a 40-year-old woman with a history of appendectomy and ectopic pregnancy 2 years earlier. She was seen in our department for a 2-month mass at the level of the right nasolabial angle, with progressive growth but without other accompanying symptoms. The patient indicated that she felt its appearance was connected with her last childbirth, 2 months earlier. She reported a lack of dental, nasal and sinus problems.

Physical examination revealed a swelling in the nasolabial area that erased the nasolabial fold, some 3 cm in diameter, with an elastic consistency; it was not painful upon palpation. Assessing the oral cavity, a convexity was found at the level of the gingivolabial sulcus corresponding to the lower area of the mass, with normal-appearing mucosa. Nasal endoscopy did not reveal any alterations.

A computed axial tomography (CAT) scan of the sinuses was requested to provide orientation as to the nature and extension of the mass. The imaging report indicated that there was a solid, expansive lesion in the right maxillary sinus, with homogeneous contrast uptake and peripheral local calcification; this extended anteriorly, causing a thinning and lack of continuity in the anterior inferior maxillary sinus wall and extending to the adjacent skin surface. Based on these findings, a possible diagnosis of benign fibrous lesion of the sinus was established (Fig. 1).

Consequently, surgery was proposed initially with a diagnostic purpose, beginning with gingivolabial approach. In the operation we found a well-limited rounded lesion, which was dissected from the adjacent structures. The integrity of the anterior inferior wall of the right maxillary sinus was confirmed, so we decided to continue with an approach to the maxillary sinus using endoscopic surgery. Upon opening the maxillary sinus, we found a foul-smelling, thick, dark, lumpy-appearing material. The pre-maxillary mass removed was sent for pathology study and the sample extracted from the right maxillary sinus was sent for histological and microbiological analysis.

The pathology report indicated that there were fungi of the Mucor/Aspergillus type in both the content of the maxillary sinus and the fragments of mucosa extracted from it, without evidence of vascular invasion.

Macroscopically, the right pre-maxillary mass was a solid 3 cm × 3 cm nodular formation. It was reported to be a lymph node with reactive lymphadenitis (Fig. 2).

In the microbiological study, aerobic germs of Strep-tococcus pneumoniae and Haemophilus influenzae type were isolated. The fungus culture was negative due to a

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technical problem in the laboratory. The sample was sent to the National Microbiology Centre, where the result of the PCR was *Aspergillus fumigatus*. Consequently, our case was a chronic non-invasive maxillary fungal rhinosinusitis with a nasogenian reactive adenopathy.

Given that the fungus was localised and there was no evidence of vascular invasion, no other treatment with systemic antifungal agents was given.

The patient continues asymptomatic after 1 year of follow-up.

**Discussion**

Fungal rhinosinusitis is generally classified as having 4 main forms: allergic, acute fulminant, chronic invasive and chronic non-invasive (fungal ball).\(^1\) The allergic form normally presents in immunocompetent subjects, with pansinus involvement and associated with the presence of allergic mucin, eosinophilia and sinonasal polyposis. The chronic invasive and acute fulminant types usually present in immunodepressed subjects and the evolution is quickly progressive (mucormycosis).\(^2\) Lastly, chronic non-invasive fungal rhinosinusitis—corresponding to our case—affects immunocompetent patients and evolves with the habitual signs and symptoms of rhinosinusitis. It usually begins with a dental infection or is secondary to an oroantral fistula.

In the CAT scan of our patient, the maxillary sinus (which is the most frequently affected) was occupied, revealing an image characteristic of calcified foreign object. Variable bone erosion is sometimes produced by the effect of pressure on the sinus wall.
Within the head and neck lymph nodes, the genian or facial group is classified by Testut and Latarjet as within what is called the pericervical "collar or ring". The nasogenian or infraorbital node is not constant and, when it is present, it follows the path of the facial vein in the nasogenian sulcus.

We believe that our case is original, given that we found no example of reactive lymphadenitis in the nasogenian area secondary to a fungal rhinosinusitis in our systematic review of the scientific literature on this subject. In addition, it was the nasolabial mass produced by the adenopathy that constituted the reason for the consultation, with the maxillary involvement being discovered later in the imaging tests, all without rhinosinusitis symptoms or history of dental processes.

Conflict of Interest

The authors have no conflict of interest to declare.

References