Do Women With a History of Pregnancy and Endodontics, Have Higher Risk of Maxillary Fungal Ball?*

¡Tienen las mujeres con antecedente de gestación y endodoncia, mayor riesgo de presentar bola fúngica maxilar?

Dear Editor,

We read with interest the article published by Lop-Gros et al., who show that the maxillary fungal ball (MFB) presents in patients who have a history of using materials for endodontics with a high affinity for fungi, is more common in female patients and that the number of cases of MFB has increased in recent years.

MFB is the most common fungal sinusitis and generally presents in adults. It is infrequent in children and teenagers probably due to the fact that the dental promontory is located beneath the maxillary sinus, limiting its access during paediatric endodontics. Although several possible causes have been analysed, we believe it would be of interest to analyse the background endodontics, due to the increase in the incidence of MFB in patients who have undergone said procedure, representing a possible aetiological factor. Another major characteristic is that this disease presents mainly in females.

Several authors have reported a higher number of female patients with MFB, the inherent characteristic of this population group being pregnancy, which predisposes the woman to the presence of cavities or dental erosion, either temporarily or permanently, through changes during pregnancy such as the reduction of saliva pH, increase in gingival circulation and reduction of the buffer effect. These events may lead to an increase in cariogenic microorganisms, and the performing of endodontic therapy, which could explain the higher number of female patients with MFB. Therefore, faced with an uncertain physio-pathological mechanism for MFB, should we be asking: do women with a history of pregnancy and endodontics, have higher risk of maxillary fungal ball?

Another factor associated with the presence of MFB is the use of metals such as zinc oxide, a component of endodontic materials, which was found both in the materials used for endodontics and in the operatory samples of patients with MFB, reinforcing the possibility of an exogenous cause in MFB origin. This exogenous cause could be heightened by the event of MFB in patients on whom bovine bone grafts were performed, in order to increase the height of the alveolar bone for dental implant.

In order to achieve an early diagnosis we also consider that any clinical suspicion of MFB present in women with chronic maxillary sinusitis who do not respond to medical treatment should be noted. As a result, complications such as invasive fungal presentation could be avoided.

Finally, recommendations for multi-disciplinary patient management are required for those patients who present with dental traumas with maxillary sinus compromise, in order to perform clinical and imaging evaluations which detect possible changes beyond dental problems. The odontologic community should also be warned about the probable risk of MFB in female patients, with a history of pregnancy and on whom zinc oxide was used in endodontics.

References


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