CASE REPORT

A rare case of sarcoidosis affecting the nasopharynx

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ABSTRACT

Sarcoidosis is a rare condition, presenting with granulomatous lesions typically located in the lungs, spleen and lymph nodes. We present an atypical case of sarcoidosis, with an initial lesion located in the nasopharynx. The patient is a 38-year-old male, with the complaints of cephalalgia, nasal obstruction and hyposmia, detected during further examination with degenerative spinal modifications, prostate inflammation and lung-based sarcoidosis. A biopsy of the lesion located in the postnasal cavity revealed granulomatous origin. The patient underwent total endoscopic adenoid removal and radiofrequency-assisted bilateral turbinate reduction, with favourable post operatory evolution. Atypical localizations of sarcoidosis lesions must be considered in the case of unusual lesions, regardless of localisation.

KEYWORDS: sarcoidosis, nasopharynx, granulomatous, case, upper respiratory tract.

INTRODUCTION

Sarcoidosis is a systemic disease of unknown etiology, that was initially described in 1869 by Jonathan Hutchinson[1]. The etiology remains unclear and, although specific etiological agents have not been identified, it is suggested that environmental and microbial antigens may trigger sarcoidosis in genetically predisposed individuals with particular immunological response[2,3].

It is characterized by a non-caseating granulomatous inflammation, most commonly manifesting in the lungs and intrathoracic lymph nodes. The rare manifestations of this disease may include unusual patterns of organ involvement, or may be the result of granulomatous inflammation developing in unusual locations[4]. For most of the cases, sarcoidosis remains a diagnosis of exclusion based on histological evidence of non-caseating granuloma tissue with compatible clinical and radiological findings[5]. Diagnostic criteria of sarcoidosis are well known but sometimes can be difficult to apply in clinical practice. In this regard, we present a case of sarcoidosis of the postnasal cavity, which proved to be a diagnostic challenge for the physician.

CASE REPORT

We present the case of a 38-year-old Caucasian male self-referred to our ENT service. The patient presented with severe repetitive episodes of cephalalgia, bilateral simultaneous or alternative nasal obstruction, hyposmia and chronic rhinitis ongoing for a year prior to consult. The patient had a history of degenerative spinal modifications, prostate inflammation, as well as sarcoidosis and hepatitis B, revealed after investigations for the initial complaint. Upon visual inspection, the patient presented a large solid lesion in the nasopharynx, fully occluding the posterior choanae. Endoscopy showed an apparent tumoral mass, grade 4 (Cassoni): a vegetative growth, non-necrotic, with irregular contour. Otherwise, the patient presented minimal pathological alterations of the pharynx, being evaluated as a Mallampati Class III by the anaesthesiology service.

A head, neck and thorax CT scan was performed, highlighting degenerative spinal modifications, lesions suggestive for sarcoidosis in both lungs, enlarged latero-cervical lymph nodes, as well as a suspicious lesion in the nasopharynx, without signs of

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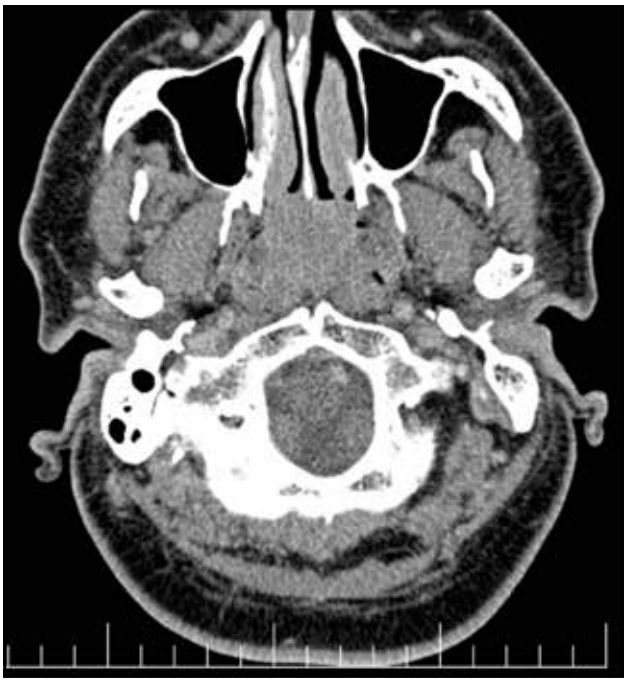

Figure 1. Computed tomography examination showing a well-defined lesion with minimum and mostly homogenous enhancement on the venous phase (<20HU) located on the midline of the nasopharynx, without signs of invasion of the surrounding structures.

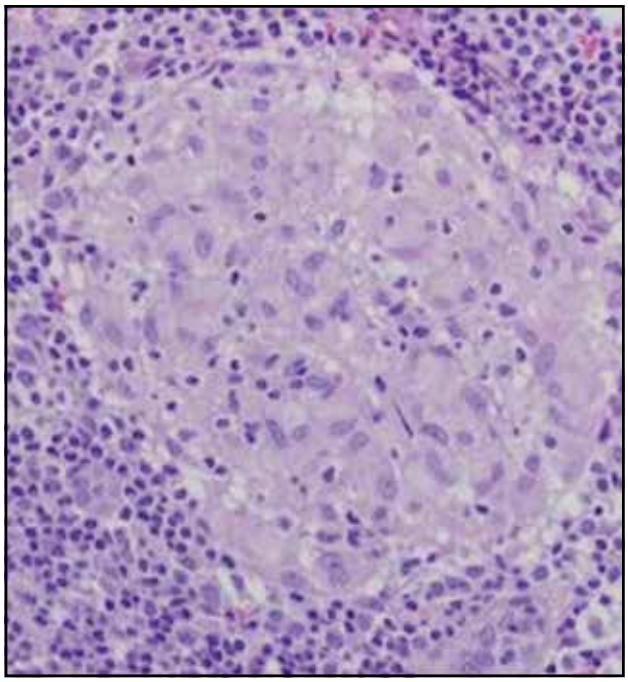

Figure 2. Pathology slide – Sarcoid inflammatory granuloma (20X), hematoxylin and eosin stain.

malignancy. The axial section of the CT scan depicting the nasopharyngeal lesion is found in Figure 1.

A biopsy was performed on the nasopharyngeal lesion, revealing a non-caseating epithelioid granulomatous inflammation in the biopsy sample, conclusive for sarcoidosis (Figure 2).

An initial differential diagnosis was made with rhinopharynx carcinoma, excluded by the lack of involvement of the lymph nodes. The patient was initially treated with topical and oral corticosteroids for 10 days, with no favourable results. Given the unresolved complaints of the patient, we decided to perform a total endoscopic "piecemeal" adenoid removal, as well as a radiofrequency-assisted bilateral turbinate reduction. The patient presented a favourable postoperative evolution while following a course of antibiotics, painkillers and hemostasis, with no signs of postoperative bleeding, as such being discharged with standard postoperative recommendations and scheduled for a check-up at 2 weeks and 1 month postoperatively; he has also received medication for the underlying pathologic context of sarcoidosis from a rheumatologist.

DISCUSSIONS

Sarcoidosis is a complex multifactorial disorder that sometimes involves the head and neck. Although these locations are most often underdiagnosed, new published data suggest that 10 to 15% of patients with sarcoidosis present head and neck manifestations. Among these, sinonasal and pituitary sarcoidosis represents a diagnostic challenge due to its non-specific symptoms. One can say that, since nasal obstruction and rhinitis are two nonspecific symptoms, sinonasal sarcoidosis may be quite difficult to diagnose. The data found states where about 1–4% of patients with both rhinitis and chronic nasal obstruction could be diagnosed with sarcomatous lesions[6].

A brief foray in the medical literature allowed us to identify other cases of sarcoidosis with atypical sinonasal location. One case study, published by Mallis et al. in 2010, reported a female patient with chronic nasal congestion over a six-month period, which was found to be due to sarcoidosis based on the histopathologic examination[7]. Another case reported a sarcoid lesion in the sinonasal region presenting as ethmoid sinuses mass with intracranial extension due to the erosion of the cribriform plate[8]. In this case, the correct diagnosis was also established through biopsy and histopathological examination.

Other ENT-related sarcoid lesions were reported for the larynx as found in 0.5% of patients, the cervical sarcoid lesion involving the common carotid artery[9]. Interestingly, 21% of patients found positive

for sarcoidosis have ocular manifestations on the initial presentation[10]. Also, it is estimated that parotid gland involvement with signs ranging from xerostomia to facial nerve palsy may be present in almost 6% of patients diagnosed with sarcoidosis[11].

Literature regarding ear, facial nerve or sublingual locations of sarcoidosis is poor, rare case reports of manifestations within specific compartments being the most frequent form of scientific presentations[12].

CONCLUSIONS

Sarcoidosis may present with atypical localizations. Although rare, it is important to raise awareness regarding these rare cases in order to provide medical professionals with background knowledge of the subject, so as to arrive to a diagnosis promptly. Literature[13-16] and our experience have pointed out that a histopathological examination of the biopsy tissue is the most relevant examination in the case of bizarre lesions, as both clinical presentation and the features of a certain disease are prone to progression and shift.

Conflict of interest: The authors declare that there is no conflict of interest.

Contribution of authors: All authors have equally contributed to this work.

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