Sinonasal sarcoidosis. A case report

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Abstract. – Introduction: Sarcoidosis is a granulomatous disease of unknown etiology, which in the majority of cases affects the lower respiratory tract. Although neck mass, parotid swelling and facial nerve palsy are considered the primary complaints in cases of head and neck sarcoidosis, sinonasal localization of the disease is also uncommonly reported.

Case: A 46 year old woman presented in our clinic with complaints of nasal congestion over a six month period. The patient reported increasing symptom severity in the last month with occasional purulent discharge. No other symptoms were reported. The patient’s medical record was significant only for sarcoidosis localized to the lower respiratory tract. On anterior rhinoscopy, the nasal mucosa presented marked hypertrophy, purplish discoloration and granulomatous appearance of the inferior turbinates on the left side. The diagnosis of sinonasal sarcoidosis was made based on histopathologic examination of biopsy specimens.

Conclusion: Sinonasal sarcoidosis presents a challenging issue for the clinician as its mimicking features may be misleading and delay diagnosis. In the present paper we present a case of sinonasal sarcoidosis presenting as chronic rhinosinusitis.

Key Words: Sinonasal sarcoidosis, Granuloma, Turbinates.

Introduction

Sarcoidosis is a granulomatous disease of unknown etiology, which in the majority of cases affects the lower respiratory tract. Sarcoidosis in the head and neck area is considered as an uncommon manifestation of the disease, with a reported prevalence of 10%.

Neck mass, parotid swelling and facial nerve palsy are considered the primary complaints in cases of head and neck sarcoidosis. Sinonasal localization of the disease is uncommon and although the reported prevalence rates range 0.7% to 10%, many concerns have been raised regarding the actual involvement rate. In particular, de-Shazo et al in their retrospective analysis of 50 sinonasal sarcoidosis cases, report that in only 9 cases the strict diagnostic criteria were fulfilled.

This report describes a 46 year old woman who presented with complaints of persistent nasal congestion over a half-year period.

Case

A 46 year old woman presented in our Clinic with complaints of nasal congestion over the past six months. The patient reported that the severity of the symptoms worsened in the last month with occasional purulent discharge. No other symptoms were reported. The patient’s medical record was significant only for sarcoidosis localized to the lower respiratory tract. On anterior rhinoscopy, the nasal mucosa presented marked hypertrophy, purplish discoloration and granulomatous appearance of the inferior turbinates on the left side. The diagnosis of sinonasal sarcoidosis was made based on histopathologic examination of biopsy specimens.

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phocytes and multinucleated giant cells (Figures 1 & 2). No foci of caseation or suppurative necrosis were observed. Gram, Grocott and Ziehl-Nielsen stains were performed to investigate the presence of bacteria, fungi or mycobacteria within the granulomas. All stains were negative. The histopathology report confirmed the diagnosis of sinonasal sarcoidosis and the patient was referred to the immunology Department for further treatment.

**Discussion**

Sinonasal sarcoidosis represents an uncommon localization of systemic sarcoidosis. The most common clinical presentation is that of chronic rhinosinusitis unresponsive to conventional treatment. Although cases of isolated sinonasal sarcoidosis have been reported in the relevant literature, it should not be considered the norm. The majority of sinonasal sarcoidosis cases have been associated with pulmonary manifestations of the disease, while some researchers even consider it as a recalcitrant form of the disease requiring aggressive therapy.

Diagnosis of sinonasal sarcoidosis requires a high level of awareness in both contexts if timely diagnosis is to be achieved. In cases of previously diagnosed sarcoidosis, this particular localization can be easily overlooked based on its similar clinical presentation to nonsarcoid rhinosinusitis. On the other hand, cases of isolated sinonasal sarcoidosis can present a diagnostic challenge as it mimics other granulomatous diseases of the sinonasal tract.

Braun et al., in their attempt to characterize the disease have proposed histopathologic confirmation of noncaseating granuloma, elevated level of angiotensin-converting enzyme (ACE) and absence of evidence of other granulomatous diseases in the context of chronic rhinosinusitis poorly responsive to conventional treatment as adequate criteria for the diagnosis. These findings are in agreement with previous reports by deShazo et al. Both researchers also report on radiologic evidence of sinusitis as part of the diagnostic criteria. In our case, however, computed tomography scans did not show any signs of sinus involvement.

Therapeutic management of sinonasal sarcoidosis is not uniformly decided on. Krespi et al. in their respective paper proposed local treatment as the main course of action. However recent articles describe local treatment as largely inadequate, preferring systemic therapy instead. The role of surgery is controversial with endoscopic sinus surgery gaining ground as a means to alleviate local symptoms in addition to systemic treatment, although concerns have been raised based on the chronic nature of the disease and possibility of complications. On this basis, we also decided not to operate in our case, and consider surgical intervention at a later stage if her symptoms do not improve through systemic therapy.

In conclusion, sinonasal sarcoidosis poses as a challenging issue for the ENT surgeon both in terms of diagnosis and therapeutic choices. Ex-
amination via anterior rhinoscopy and medical history remain still important tools that will guide the otolaryngologist as to the need of further evaluation for the correct diagnosis of sinonasal sarcoidosis.

References


