Ear, Nose, and Throat Manifestations of Sarcoidosis

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KEYWORDS

• Sarcoidosis • Head • Neck • Great imitator • Granuloma • Lymph node
• Cervical lymphadenopathy

KEY POINTS

- It is crucial for detection of ear, nose, and throat (ENT) manifestations that practitioners consider sarcoidosis when constructing a differential diagnosis and selecting testing modalities for ENT symptoms with unusual presentations or that are refractory to treatment.
- Extrapulmonary manifestations of sarcoidosis are not uncommon, although they rarely occur in isolation.
- Of head and neck manifestations, the most common subsite is cervical lymph nodes.
- Initial misdiagnosis is common, necessitating tissue biopsy and radiologic imaging modalities in order to arrive at a correct diagnosis.
- Systemic corticosteroids are the mainstay of treatment for most ENT manifestations of treatment.

INTRODUCTION

Sarcoidosis is a multisystem inflammatory disease that can be difficult to diagnose. Although pulmonary structures are most commonly involved, sarcoidosis often involves structures of the head and neck. Initial misdiagnosis is common, necessitating tissue biopsy and radiologic imaging modalities in order to arrive at a correct diagnosis. This article will describe the case of a 25-year-old woman who presented to the clinic with a 2-month history of progressive otolaryngologic manifestations. Sarcoidosis has a tendency to mimic conditions with similar otolaryngologic presentations; therefore, it is important that practitioners consider sarcoidosis when constructing a differential diagnosis and selecting testing modalities. Considering a diagnosis of sarcoidosis is especially vital if symptoms are refractory to treatment or if presentation and examination findings are not consistent with more common

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otolaryngologic diseases. This article will explore the challenges of diagnosis and treatment of sarcoidosis through a case study.

CASE STUDY

A 25-year-old woman presents to an otolaryngology clinic for evaluation of her mouth and throat. She is accompanied by her mother, who provides the patient's medical history. The patient has de Grouchy syndrome and is nonverbal. The patient's mother reports that the patient has experienced pain in the mouth and throat intermittently for the past 8 weeks. The current episode has persisted for 4 weeks. Associated symptoms include fever of 100.4 °F, reported oral lesions, and lymphadenopathy of the neck with tenderness. Mother denies skin rashes, diarrhea, nausea, nasal congestion, otalgia, rhinorrhea, coughing, dyspnea, or wheezing. Within the past 2 months, the patient has been seen by her dentist, primary care provider, and 2 emergency department physicians. Per the patient's mother, radiographs of the neck, jaw, and dentition are normal. She was diagnosed with hand, foot, and mouth disease (HFMD) and has subsequently been treated with courses of amoxicillin clavulanate, valacyclovir, and prednisone. However, her symptoms did not respond to these treatments and she has continued to worsen. The patient's mother is adamant that something else is causing her daughter's symptoms and expresses frustration with the lack of answers.

On examination, the patient's head is normocephalic and atraumatic. Her tympanic membranes, external auditory canals, and external ears are within normal limits bilaterally. No rhinorrhea is noted, and no nasal mucosa edema is present. On examination of the oropharynx, no oral lesions are visible, and tonsils are within normal limits. Poor dentition is noted, and dental caries are present. Wharton and Stensen ducts are patent with normal salivary flow bilaterally, with no intraductal masses or stones palpable. Palpation of the neck reveals scattered anterior lymphadenopathy bilaterally, more prominent on the right side superiorly. The right submandibular gland is mildly enlarged on palpation. Cardiovascular and pulmonary findings are within normal limits on physical examination.

After discussing findings and options with the patient's mother, she elects to proceed with computed tomography (CT) of the neck with intravenous contrast. The scan reveals extensive bilateral enhancing jugular chain adenopathy with the largest lymph nodes visible at the angle of the right mandible (**Fig. 1**) and irregular enhancement of the right submandibular gland with a pattern suspicious for infiltration by the disease affecting the adjacent markedly enlarged lymph nodes (**Fig. 2**). The radiologist notes that the appearance of the lymphadenopathy is most consistent with lymphoma. Subsequently, the largest lymph node is removed via an excisional biopsy, and pathology confirms granulomatous lymphadenitis with morphologic features highly suggestive of sarcoidosis; malignancy is ruled out.

BACKGROUND

As illustrated by this case study, sarcoidosis has a long-recognized reputation as a difficult-to-diagnose disease and is often referred to as the great imitator, especially with regard to extrapulmonary manifestations. Sarcoidosis can occur in almost any organ system and usually involves more than 1 organ.[1] Sarcoidosis was initially described by Jonathan Hutchinson in 1869 as a dermatologic condition. Over time, sarcoidosis gained recognition as a multisystem disorder with a high incidence of pulmonary abnormalities.[2] In addition to the lungs and skin, other organs commonly affected by sarcoidosis include heart, kidneys, eyes, liver, central nervous system, peripheral nervous system, lymph nodes, and upper respiratory tract.