Amyloidosis Presenting with Macroglossia

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Abstract

Macroglossia is an uncommon condition that causes cosmetic and functional disabilities. We present a case of a 67-year-old patient with the past medical history of vitamin B12 deficiencies who presented with macroglossia and was found to have amyloidosis. She had an enlarged tongue with multiple ulcerations secondary to traumatic injury from dentation along with difficulty swallowing. Laboratory workup was unremarkable apart from elevated C reactive protein (CRP) and low complement 3 (C3) levels. On the second day of admission she had gastrointestinal bleed; computed tomography (CT) scan of the abdomen with oral contrast was performed which revealed nodular thickening of the stomach suspicious for gastric malignancy. Endoscopy was postponed as there was concern that macroglossia could comprise the airway. A biopsy of the tongue was performed and histological staining was positive suggestive of the amyloidosis. We discuss here the probable underlying causes of macroglossia and amyloidosis.

Categories: Internal Medicine, Otolaryngology
Keywords: amyloidosis, macroglossia

Introduction

Macroglossia is an abnormal enlargement of the tongue [1]. It is an uncommon condition that causes cosmetic and functional disabilities in speaking, eating, swallowing, and sleeping. Oral amyloidosis is a rare and debilitating condition that, whether primary or secondary, may severely impact the quality of the patient’s life. The differential diagnosis includes hypothyroidism, growth disorders, neoplasm, chromosomal abnormalities, and amyloidosis. Vitamin deficiencies, particularly Vitamin B12, cause B12 deficiency glossitis (inflammation of the tongue) mimicking macroglossia [1]. We reported a case of a patient with the past medical history of vitamin B12 deficiency who presented with macroglossia and was found to have amyloidosis.

Case Presentation

We presented a case of a 67-year-old female nursing home resident with a history of diabetes mellitus type 2, hypertension, hyperlipidemia, old ischemic stroke, bronchial asthma, and pernicious anemia on monthly vitamin B12 injection. She was admitted to our hospital with complaints of persistent diffuse joint pain and several tongue ulcerations secondary to traumatic pressure from dentation and associated difficulty swallowing. Otorhinolaryngology and rheumatology services evaluated her and treated her with a course of amoxicillin-clavulanate, acyclovir for 14 days as well as with a short course of oral steroids showing improvement. The serology for herpes simplex was negative. Rheumatological workup was unremarkable apart from elevated C reactive protein (CRP) and low complement 3 (C3) level. She was discharge to a nursing home with a plan to follow-up as an outpatient, but no follow-up was recorded. Two months later she returned with complaints of generalized joint pain and poor intake due to difficulty swallowing. Review of her medical record revealed dysplastic changes during endoscopy in March 2009 showing gastritis and peptic duodenitis. Computed tomography (CT) chest in April 2009 showed incidental left lung nodule and was unchanged on repeat CT chest in October 2009. On physical examination, her blood pressure was 133/70 mmHg, heart rate was 89/min, and oxygen saturation on room air was 99%. She had an enlarged tongue, swollen and tender with several ulcerations between 0.1 and 1 cm in size and with a white discharge. She also had submandibular nontender lymphadenopathy and bilateral joint swelling of shoulder, knee, wrist, and elbow. She had normocytic anemia at baseline, mildly elevated white blood cell count 11,000/ml (reference range: 4000-10,000/ml), and elevated blood urea nitrogen/creatinine from a normal baseline two months ago. The urinalysis was negative for protein and positive for trace blood. On the second day of admission, she had gastrointestinal bleed with a drop of her hemoglobin from 8 to 6.4 mg/dl. The CT abdomen with an oral contrast was performed which revealed nodular thickening of the stomach suspicious for malignancy and pelvic ascites with high-density fluid. Endoscopy was postponed as there was concern that macroglossia could comprise the airway.

Further workup did not show any spikes on serum protein electrophoresis. Antinuclear antibody (ANA) and...
A high index of suspicion is necessary for the diagnosis of such rare cases. In a patient presenting with macroglossia, including surgical excision and pharmacological treatment. The prognosis is uncertain, owing to the rarity of the condition, requiring regular follow-up and monitoring.

Conclusions

A high index of suspicion is necessary for the diagnosis of such rare cases. In a patient presenting with macroglossia and tongue ulceration, one should not dismiss the possibility of amyloidosis.
**Additional Information**

**Disclosures**

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