

Macroglossia and angioedema

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A 68-year-old man with known rheumatoid arthritis, hypertension, chronic renal disease, chronic ischemic heart disease, and chronic obstructive pulmonary disease, admitted to our clinic with shortness of breath, dizziness, and dysarthria. He was taking amlodipine 10 mg/day, furosemide 40 mg/day, prednisolone 10 mg/day, asetil-salisilik asit (ASA) 100 mg/day, pantoprazole 40 mg/day, and inhalant salmeterol 3 puff/day and fluticasone 3 puff/day. He had no known allergies. Family history of the patient was unremarkable. On examination, blood pressure was 135/78 mmHg, heart rate was 90 beats/min, and respiratory rate was 22 breaths/min. Pretibial pitting edema was observed. Diffused rhonchus was heard in lung examination. Neurological examination and cranial CT were normal. On

his third day of hospitalization, the patient's tongue was abnormally swollen (Figure 1). His macroglossia was causing speech impediment and dysphagia. Tongue examination revealed a mild nodular appearance on its surface, with obvious indentations along the bilateral margins, pink color, firmness, and hypertrophy. Swollen submental region and protrusion of the tongue were present, causing an inability to close his mouth. Magnetic resonance imaging revealed oropharyngeal narrowing caused by increased tongue volume. Tongue biopsy results were consistent with glossitis and muscular hypertrophy. The patient's renal function gradually worsened and finally hemodialysis was commenced. The patient was administered IV methylprednisolone 40 mg and nystatin oral



Figure 1. Macroglossia on presentation.

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suspension. His complaints completely regressed. We thought that there might be an allergy to any medicine or food that we were unable to find the cause of. The patient now has complete resolution of his symptom without any recurrence after six months of follow-up.

Although macroglossia is often caused by vascular malformations and muscular hypertrophy, it may also result from various congenital and acquired conditions.

When the cause is a primary disorder of the tongue tissue, it is named true macroglossia, and when it occurs secondary to another disorder, such as by amyloidosis, it is termed relative macroglossia. Macroglossia may be encountered in certain inherited or congenital disorders, including: Down syndrome and Beckwith-Wiedemann syndrome, Behmel or Laband syndromes, hemangioma, hamartomas, lingual thyroid, myxedema, mucopolysaccharidosis, and neurofibromatosis.^[1] Acquired causes may include metabolic or endocrine conditions such as hypothyroidism, amyloidosis, and acromegaly; inflammatory/infectious diseases, such as pemphigus vulgaris, diphtheria, actinomycosis, candidiasis, tuberculosis, sarcoidosis; angioedema; and trauma.^[2] Moreover, neoplastic disorders, such as lymphangioma or various malignancies, may also cause macroglossia.

Macroglossia is a clinical diagnosis. Therefore, clinical history, examination, and basic imaging

techniques will be sufficient in identifying its etiology. Nasopharyngeal endoscopy may be necessary to assess whether the upper airway is obstructed. Genetic and chromosomal studies may be required to establish the diagnosis. Magnetic resonance imaging is the best method of choice for identifying the dimensions as well as the margins of the tumor. In certain cases, biopsy may be necessary in order to identify the cause, such as in lingual thyroid and amyloidosis.^[3]

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