Angiotensin-converting Enzyme (ACE) Inhibitor Induced Macroglossia

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Sirs,

Isolated angioedema of the tongue is an extremely rare variant of ACE inhibitor-related angioneurotic edema.\(^1\) The widespread use of ACE inhibitors mandates a special awareness by physicians of this potentially life-threatening yet treatable side effect.\(^2\)

60 year female came with complaints of headache and giddiness in medicine outpatient department. Patient was known case of hypertension had stopped treatment since 1 week. On examination patient was conscious, oriented in time, place and person. Afebrile, pulse 100/min, BP – 220/110. Pt was admitted in ICU and was started on Enalapril 5 mg stat. On recording BP after 1 hour blood pressure had decreased to 170/90. Patient started complaining of slurred speech and heaviness of tongue with difficulty in swallowing tablets as well as difficulty in swallowing liquids. The diagnosis of ACE inhibitor induced angioedema was suspected and Enalapril was stopped. Patient was given injectable antihistamine and steroids, following which the swelling of tongue had subsided. Patient was complaining of difficulty in swallowing so indirect laryngoscopy done showed edema over arytenoid aryepiglottic fold compressing left pyriform. Cord movements were normal. Subsequently Barium swallow study done was also normal. Patient’s dysphagia had improved by day 3 of admission and patient was able to swallow liquids and solids by day 3.

Angiotensin-converting enzyme inhibitors are a frequent cause of angioedema, causing up to 25% of all angioedema cases seen in the emergency room. Most cases present within weeks of ACE inhibitor onset, but some develop even years after institution of treatment. Although the underlying mechanism is not fully understood, excess bradykinin produced through a complex interplay between the kallikrein-kinin and renin-angiotensin-aldosterone systems is thought to play a major role.\(^3,4\) Treatment is aimed at the maintenance of a patent upper airway. Repeated doses of subcutaneous epinephrine and intravenous corticosteroids and antihistamines are administered to alleviate tissue swelling although their efficacy has never been proven.

References