



## AB237. ACEi and angioedema— case report

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**Background:** Angiotensin converting enzyme inhibitors (ACEi) are commonly prescribed to patients with hypertension, heart failure, chronic kidney disease and diabetes. The incidence of angioedema due to ACEi is 0.1–0.7% in all recipients, with the risk remaining constant over time. Given that approximately 40 million patients worldwide take ACEi, the absolute number at risk of developing angioedema is relatively high and early recognition is vital to prevent life-threatening airway obstruction.

**Methods:** A 66-year-old female, with a background history of schizophrenia, hypertension and chronic obstructive pulmonary disease, was transferred to Accident & Emergency (A&E) from an Acute Mental Health Unit with acute tongue swelling. This occurred over 15 hours after administration of perindopril, a medication she had been taking for many years. She had received promethazine and hydrocortisone intramuscular (IM) in the Emergency

Department. On examination by the intensive care unit (ICU) team, she was found to have severe angioedema with tongue protrusion and drooling. She could not vocalise and due to the extent of swelling, no Mallampatti score could be assigned. Her cricothyroid membrane was palpable in the A&E. Following discussion with Consultant Intensivist, she was transferred to theatre for an awake fiberoptic intubation. On the second attempt, a size 6 endotracheal tube was successfully placed with the aid of a McGrath laryngoscope. She was subsequently transferred to ICU and was extubated 9 days later.

**Results:** She is receiving ongoing care on a medical ward.

**Conclusions:** Angioedema is a known, albeit rare, complication of ACEi. Although the incidence is low, the frequency of use and the unpredictability of development of angioedema means timely identification, which was not the case with this patient, and intervention is necessary to ensure patients are treated effectively.

**Keywords:** Angiotensin converting enzyme inhibitors; angioedema; patient safety; fiberoptic intubation; emergency airway compromise

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