Acute Angioedema in a 56-Year-Old Male with Bipolar Disorder

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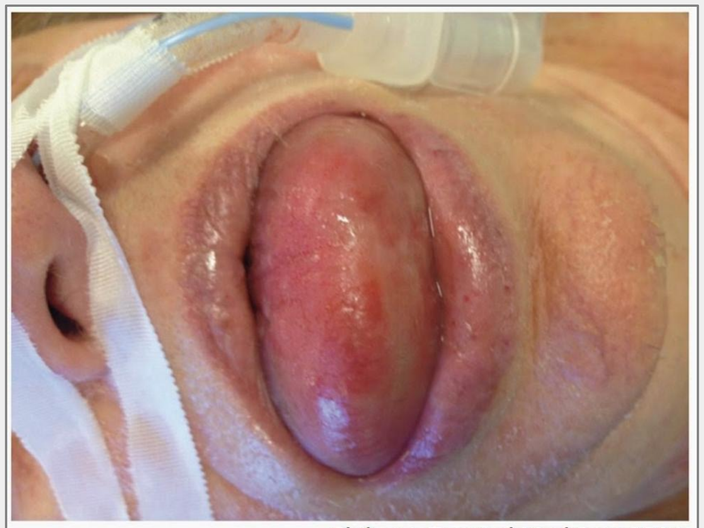
Introduction

- Angioedema is the swelling of subcutaneous and submucosal tissues caused by increased vascular permeability.
- The causes of angioedema can be categorized as hereditary, allergic, acquired, or idiopathic.
- One unique cause is cocaine-induced angioedema. First described in 1999 by Castro-Villamor and colleagues, the pathophysiology of cocaine-induced angioedema is unclear, but many mechanisms have been proposed.
- The purpose of this case report is to present a rare case of cocaine-induced angioedema.

Figure. Example of Severe Angioedema



Shiber J, Tropical Med Surg 2014

Patient Description

- A 56-year-old male with a history of bipolar disorder and polysubstance use presented with significantly edematous lips and a protruding enlarged tongue.
- The patient was in acute respiratory distress secondary to his upper airway edema, tachypnea, and inability to manage secretions.
- The patient's initial vital signs showed a blood pressure of 148/87, heart rate of 96, respiratory rate of 30, and oxygen saturation of 100%.
- The patient was noted to be severely agitated yelling that he could not breathe.
- On chart review, the patient had no prior history of angioedema or allergies and was not prescribed any blood pressure medications.
- The patient was given IM epinephrine, 125mg of methylprednisolone, diphenhydramine, and famotidine.
- The patient was closely monitored without any improvement in his symptoms and was becoming more agitated.
- The patient was sedated and intubated using a flexible fiberoptic scope.

Intervention

- In the intensive care unit, the patient received dexamethasone, diphenhydramine, and famotidine.
- The patient was extubated on Day 3 of admission with significant improvement in upper airway edema.
- C1q, C1 esterase antigen, and tryptase were all within normal limits.
- It was confirmed that the patient had never been on ACE inhibitors or had a history of angioedema.
- Given the patient's history, the angioedema was most likely induced by cocaine (positive on drug screen).

Conclusions

- Physicians should be aware of cocaine use as a possible cause of angioedema and the need to do testing in unclear cases.
- Treatment consists of H1 and H2 blocking drugs, steroid therapy, and, if indicated, epinephrine.
- Adequate counseling of patients about this dangerous complication of cocaine use may prevent recurrent episodes of this life-threatening emergency.

References

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