FRESH FROZEN PLASMA USE IN ANGIOTENSIN-CONVERTING ENZYME INHIBITOR INDUCED EDEMA

Aleksandra Sliwinska MD, Brenda Nyatanga MD, Cassandra Murphy MD
University of Connecticut School of Medicine, Department of Medicine

INTRODUCTION

• Angiotensin-converting enzyme inhibitors (ACEI) are the leading cause of drug-induced angioedema.
• Diagnosis is mainly clinical.
• Primary treatment is supportive however new therapies including Fresh Frozen Plasma (FFP), icabitant and tranexamic acid are emerging.
• We describe a successful use of FFP with quick resolution of symptoms.

CASE DESCRIPTION

• Vital signs were stable
• Physical exam revealed mild respiratory distress without accessory muscle use, left eye, cheek, lip, uvula and posterior oropharynx swelling.
• Given significant tachycardia epinephrine drip was stopped and two doses of FFP were ordered.
• Immediate relief of dyspnea was observed.
• Complete resolution of symptoms was noted 3 hours after FFP administration.
• She was admitted for close airway monitoring and was discharged two days later.

CASE DESCRIPTION

• 34-year old female with past medical history of recently diagnosed hypertension presented to an urgent care clinic with sudden onset of left eye lid swelling, dyspnea, drooling and pruritus.
• Five days prior she had started ACEI therapy.
• Patient was given IV steroids, antihistamines, three doses of IM epinephrine without improvement.
• She was started on epinephrine drip and transferred to our ED.

DISCUSSION

• ACEI-induced edema can be clinically indistinguishable from allergic or anaphylactic reaction.
• Several therapies effective in hereditary angioedema have been successfully used in ACEI-induced angioedema.
• These include icabitant, ecallantide, tranexamic acid, purified C1 inhibitor concentrate and FFP.
• FFP contains ACE enzyme that decreases bradykinin levels as seen in Fig.1.
• Up to 46% patients may experience recurrence in the first few months despite discontinuation of ACEI.
• Acutely, close monitoring is crucial as airway obstruction occurs in 10% of cases.

CONCLUSIONS

• FFP is a relatively cheap and easily accessible treatment for a potentially life-threatening condition.

REFERENCES