

From a hornet's sting to immediate percutaneous coronary intervention; a case report of a patient with Kounis syndrome

Andro Kurtić, MD¹, Mersiha Bačevac, MD¹

1 Emergency Department, University Hospital Dubrava, Zagreb, Croatia

Keywords:

anaphylaxis, hornet's sting, Kounis syndrome

Background:

Kounis syndrome (KS) presents as acute coronary syndrome caused by an allergic reaction or anaphylaxis. The mechanism of KS involves the release of inflammatory cytokines through mast cell activation leading to coronary artery vasospasm and atheromatous plaque erosion or rupture. There are three types of KS. Type I is an allergic vasospastic angina caused by dysfunctional epithelium of coronary arteries. Type II occurs in patients with underlying coronary diseases, in whom the allergic reaction leads to plaque erosion or rupture. Type III includes coronary artery stent thrombosis secondary to an allergic reaction.

Case presentation:

A 51-year-old male with a previous history of diabetes mellitus type II, hyperlipidaemia and arterial hypertension presented to the emergency department with an anaphylactic reaction to a hornet's sting above his right eyebrow. There were no previous allergic reactions to insect stings or medications and no history of coronary disease. Initially, he had pale skin, was dizzy and hypotensive, arterial pressure was 70/40mmHg, and his other vital signs were within normal limits. The administered therapy included intravenous methylprednisolone 125 mg, chloropyramine 20 mg, 0,9% saline 1000 mL and intramuscular epinephrine 0.5 mg. During monitoring, he complained about shoulder blade pain. Electrocardiogram showed sinus tachycardia with ST elevations in anteroseptolateral regions. The patient underwent emergency percutaneous coronary intervention with successful thromboaspiration and stenting in the left anterior descending coronary artery.

Conclusion:

KS is a rare cause of acute coronary syndrome in patients with allergic reactions or anaphylaxis, no matter if there is a previous history of coronary artery disease or not. Any KS should be recognised and promptly treated.