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KOUNIS SYNDROME IN A PATIENT WITH ALLERGIC BRONCHIAL ASTHMA: CLINICAL INSIGHTS AND PROPOSAL OF A NOVEL RISK STRATIFICATION MODEL

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Relevance. Anaphylaxis is a potentially fatal systemic hypersensitivity reaction that affects 50–112 out of every 100,000 individuals annually. Up to 30% of severe cases involve the cardiovascular system. Kounis syndrome is a little-studied allergic acute coronary syndrome that results in myocardial ischemia and coronary vasospasm due to mast cell mediator release. Diagnosis is frequently delayed by overlap with acute coronary syndrome. With increasing prevalence of atopic diseases, awareness of allergy-induced cardiac events is crucial.

Aim: to present a case of anaphylactic shock complicated by acute coronary syndrome (ACS) in a patient with allergic bronchial asthma and to draw attention to important diagnostic and treatment issues. Additionally, provide a hypothesis scoring system for the prediction of Kounis Syndrome in atopic illness patients after medication exposure or allergic responses.

Material and methods. A retrospective study of a 46 year old female with allergic bronchial asthma and rhinitis was conducted. Clinical examination, laboratory testing (CBC, biochemistry, total/specific IgE), and instrumental investigations (spirometry, ECG, imaging) were used for evaluation.

Results and discussion. The patient exhibited severe atopy, with IgE levels of 1100 IU/mL and numerous allergen sensitivities. After receiving Intramuscular Ketorolac, she had anaphylactic shock suggested by hypotension, dyspnea, and chest discomfort. The ECG showed dynamic ischemia alterations (ST depression advancing to ST elevation), and troponin I was significantly high (29,596 ng/L). Imaging revealed a brief coronary spasm without atherosclerotic blockage, which resolved with nitroglycerin. These findings verified the Type I Kounis syndrome, in which allergic mediator release causes coronary vasospasm in people with normal coronary arteries. Notably, up to 70% of instances occur without prior coronary disease. The combination of allergy and cardiac symptoms complicates diagnosis. Adrenaline, corticosteroids, antihistamines, oxygen therapy, and heart monitoring were administered promptly, and the patient recovered completely.

Conclusion. Kounis syndrome is a serious but underdiagnosed cause of ACS during anaphylaxis, particularly in atopic patients. Early cardiac examination in allergic responses with chest discomfort or ECG abnormalities is critical. Timely, comprehensive care improves results and avoids life threatening complications. Nevertheless patients with IgE 1000 IU/ml and polysensitization with medication exposure constitute the greatest risk profile.