

Oral Session

CASE REPORTS

01. An Unusual Case Report of Kounis Syndrome Following Cystoscopy

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Background: Kounis syndrome is an acute coronary syndrome that can occur in the context of hypersensitivity reactions. It typically occurs in middle-aged to elderly patients, especially in males. Additional risk factors may include a history of atopy, smoking, hypertension, diabetes mellitus, and dyslipidemia. It is classified into type I (vasospasm in a normal coronary vessel), type II (rupture or vasospasm in a pre-existing atheromatous plaque), type III (stent thrombosis or restenosis), and type IV (coronary artery bypass graft thrombosis). A variable combination of features suggestive of allergy (rash, pruritus, wheezing) and cardiac ischemia (chest pain, arrhythmias, heart failure) may be observed, guiding management. **Case:** A 73-year-old male presented to the Emergency Department (ED) with chest pain, pruritic rash, dizziness, diaphoresis, and hypotension shortly after cystoscopy. The rash consisted of plaques over the trunk and extremities. His past medical history was notable for previous smoking, hyperlipidemia, hypertension, acute coronary syndrome treated with a stent in the left circumflex (LCX) artery 17 years ago, benign prostatic hyperplasia, and bladder cancer for which he had multiple surveillance cystoscopies. The patient denied any allergies. Previous medications were aspirin, atorvastatin, nebivolol, ranolazine, olmesartan, hydrochlorothiazide, and tamsulosin. Coronary angiography following a positive single-photon emission computed tomography (SPECT) six years ago revealed a patent stent, left anterior descending (LAD) blockage, and insignificant stenoses in the following arteries: left main (LM), first diagonal branch (DG1), LCX, first obtuse coronary artery (OM1), and right coronary artery (RCA). Laboratory testing in the ED revealed elevated D-dimers and troponin on repeat testing; further assessment with electrocardiogram (ECG), echocardiogram (ejection fraction 60%), chest X-ray (CXR), and computed tomography pulmonary angiography (CTPA) was unremarkable, consistent with non-ST-segment elevation myocardial infarction (NSTEMI). Given the dominant manifestation of the allergic reaction, initial management included intravenous fluids, methylprednisolone, and dimetindene, leading to the rapid resolution of his symptoms. During his hospitalization, methylprednisolone, levosetirizine, and inhaled ipratropium/budesonide were added to the medication regimen while the patient remained clinically stable with normalizing troponin levels. Coronary angiography was unchanged three days after the event.

Hence, the combination of cardiac ischemia and pruritic rash, the rapid response to antiallergic medications, and normal coronary angiography pointed to the diagnosis of Kounis syndrome. The patient was discharged with prescriptions for aspirin, clopidogrel, esomeprazole, ranolazine, nebivolol, tamsulosin, rosuvastatin, ezetimibe, and a 3-day regimen of levosetirizine. Follow-up echocardiography after 1 week was unchanged with a similar ejection fraction, normal ventricular diameters, diastolic dysfunction, moderate left atrial dilation, and a small pericardial effusion.

Conclusion: Kounis syndrome should be suspected in patients with features suggestive of anaphylaxis (pruritic rash and hypotension) as well as myocardial ischemia (chest pain, diaphoresis, and elevated troponin), especially in patients with cardiovascular risk factors. This case emphasizes that cystoscopy represents an unusual cause of severe hypersensitivity reactions. Potential triggers include antiseptics, anesthetics, neuromuscular blocking agents, antibiotics, and latex, which may not be identified.

Key Words: Kounis Syndrome; Anaphylaxis; Hypersensitivity; Cystoscopy; Acute Coronary Syndrome (Source: MeSH-NLM).



Figure: The coronary angiography of the patient (three days after admission) revealed the pre-existing atherosclerotic lesions. Note the left main coronary artery with its branches, including the left circumflex artery stent (left), and the right coronary artery (right).

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ISSN 2076-6327

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