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Letter to the Editor

Acute inferior myocardial infarction with low atrial rhythm due to propyphenazone: Kounis syndrome

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Kounis syndrome which is the concurrence of acute coronary syndromes with allergic or hypersensitivity reactions is now better known and the knowledge about this phenomenon is becoming larger. We want to present a case which developed transient ST elevation myocardial infarction with low atrial rhythm soon after propyphenazone usage.

Despite the large knowledge about the pathogenesis of acute coronary syndromes, there is little data about the role of mast cells in this complex. Now the data about the concurrence of acute coronary events and hypersensitivity reactions are growing with new publications. We want to present a patient with transient ST elevation myocardial infarction after ingestion of propyphenazone. The patient was a 49 year old male. He was admitted to our hospital with complaints of a pressure like chest pain for nearly 30 min, palpitation and lightheadedness. In his physical examination body temperature was 36.4 °C, his blood pressure was 80/50 mm Hg, pulse rate was 63 bpm and except extensive rashes on the skin other physical findings were normal including all heart sounds. He was an ex-smoker as a cardiovascular risk factor and had no other risk factors for cardiovascular diseases. He implied that he had experienced the same symptoms 3 months before, about 30 min after taking propyphenazone for his headache. This time he took propyphenazone for headache after about 30 min his symptoms have begun again. Because of his admission electrocardiogram was compatible with acute inferior myocardial infarction with low atrial rhythm, he was began to prepare for immediate coronary angiography (Fig. 1). For his low blood pressure

saline infusion was began. 300 mg acetylsalicylic acid was chewed by the patient and 25 mg ranitidine by intravenous route had been given to the patient. During that period for about 10 min his chest pain diminished and in a few minutes his chest pain completely relieved. The electrocardiogram was completely normal including complete ST resolution (Fig. 2). To rule out a probable coronary obstruction, the patient was admitted to the catheterization laboratory and coronary angiography was performed. Coronary angiogram was completely normal and the patient was brought again to the coronary care unit. In the reevaluation of patient the rashes were gone away and physical examination was completely normal. Nitrate and verapamil therapy was begun to the patient for antivasospastic properties. In the laboratory, his admission troponin T was in normal limits (<0.01 ng/mL), it reached to its peak level on the second day as 0.07 ng/mL (normal level: 0.01–0.03 ng/mL). Other laboratory parameters except low HDL (33 mg/dL) were normal. On echocardiographic examination, there was neither segmenter nor global wall motion abnormality. The patient was discharged home with nitrate and verapamil therapy. On the first month control the patient was normal including laboratory parameters, physical examination findings and EKG.

Because of the history of the same symptoms after ingestion of propyphenazone 3 months before, chest pain, ST elevation in inferior derivations of electrocardiogram and resolution after pain reliefment, the normal coronary angiogram, all made us to think this case as myocardial infarction due to allergic reaction which is commonly known as Kounis syndrome.

Sixty years passed from the first report of concurrence of an allergic reaction and an acute coronary event [1]. Now the concurrence of acute coronary events together with allergic reactions ranging from only skin rashes to anaphylaxis is better known. It is known that same mediators such as histamine, tryptase and chymase which cause an allergic reaction can also cause any coronary event ranging from angina pectoris, unstable angina to acute myocardial infarction [2]. In the 1990s allergic angina and allergic myocardial infarction are extensively described by Kounis et al. [3]. With reported cases and studies on molecular mechanisms of acute coronary events, we think that Kounis syndrome is not a very rare phenomenon, rather it is a less recognized syndrome. It can be caused by various drugs such as antibiotics [4], non-steroidal anti-inflammatory drugs like in our patient [5], insect bites, drug eluting stents, etc. Detailed history and careful physical examination are the cornerstones in the diagnosis. We presented a successfully treated patient with acute inferior myocardial infarction caused by allergic reaction to propyphenazone, which we call Kounis syndrome.

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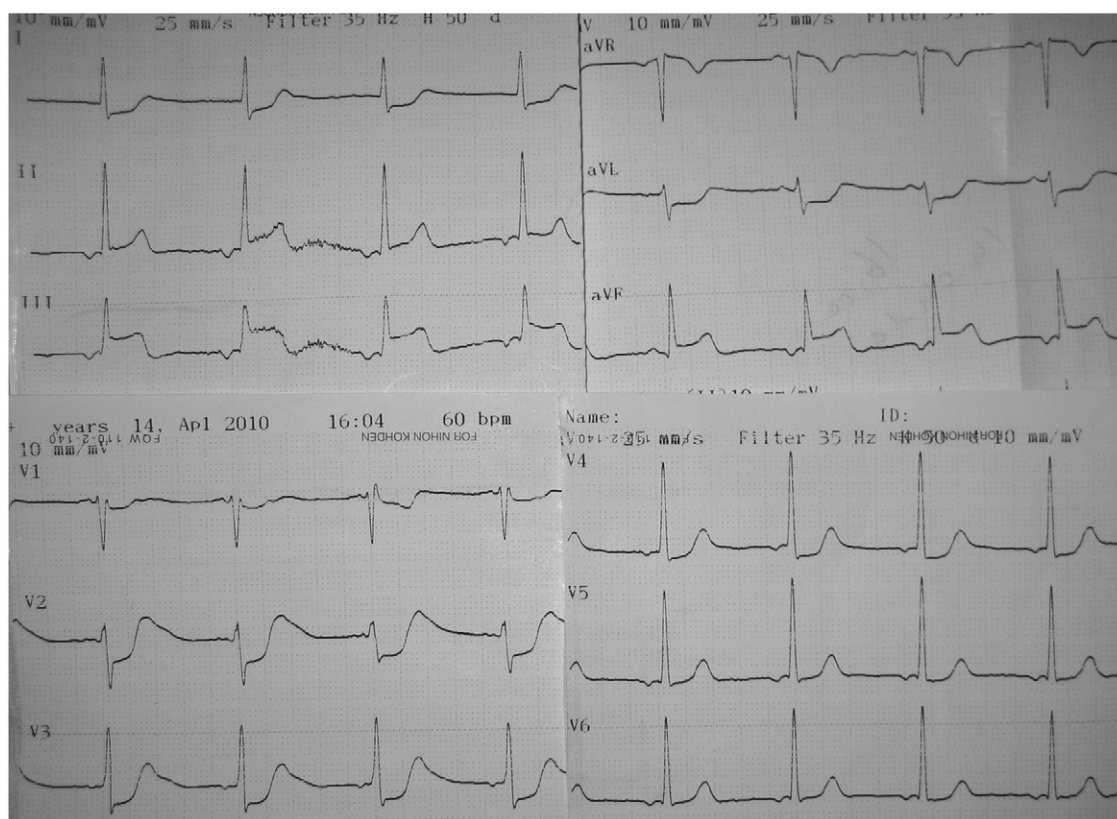


Fig. 1. Admission EKG.

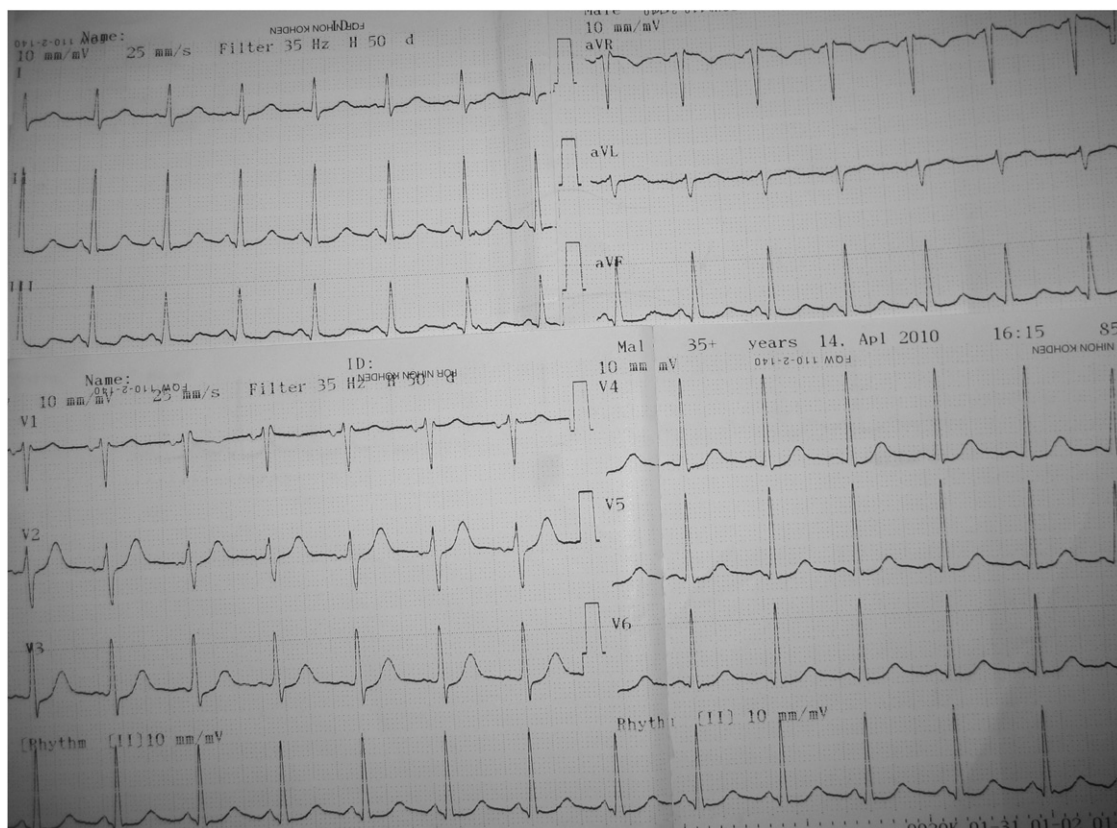


Fig. 2. EKG after chest pain relieved.

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The authors of this manuscript have certified that they comply with the Principles of Ethical Publishing in the International Journal of Cardiology [6].

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