

Review

Kounis Syndrome - a Natural Paradigm

Luminița-Bianca GROSU¹, Ana Gabriela PRADA^{1,2}, Raluca Ioana DASCĂLU¹,
Camelia Cristina DIACONU^{1,2}

¹Department of Internal Medicine, Clinical Emergency Hospital of Bucharest, Bucharest, Romania

²“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

Address for correspondence: Luminița-Bianca Grosu, Department of Internal Medicine, Clinical Emergency Hospital of Bucharest, Bucharest, Romania; e-mail: grosu_luminita@yahoo.com

Abstract

Kounis syndrome is a ubiquitous condition, representing a natural paradigm between coronary artery vasospasm, plaque rupture and anaphylactoid reactions. Kounis syndrome is underdiagnosed, as the inflammatory cells releases, in both allergic and non-allergic acute coronary syndrome, are the same. The syndrome is induced by various causes such as drugs, foods, environmental exposure, stents. There are three variants of Kounis syndrome: vasospastic allergic angina, allergic myocardial infarction, and stent thrombosis. All patients with systemic allergic manifestations correlated with clinical, laboratory and electrocardiography findings of acute myocardial infarction must be investigated for Kounis syndrome. The therapeutic management of Kounis syndrome represents a challenge, as it is necessary to treat both the cardiac and allergic events. After the acute event, a complete cardiological follow-up is mandatory, skin tests, verification of allergies to food, insect stings, drugs and environment agents. The awareness of etiology, epidemiology, pathogenesis, signs and symptoms is important for its diagnosis, treatment, prognosis and prevention.

Keywords: Kounis syndrome, anaphylaxis, angina.

INTRODUCTION

Kounis syndrome represents the presence of acute coronary syndrome associated with allergic events or anaphylactoid insults. It is determined by inflammatory mediators as histamine, platelet-activating factor, arachidonic acid products and other chemokines and cytokines. The mast cells play the dominant role in the inflammatory process and activate with the other cells a vicious cascade via multidirectional ways. Kounis syndrome was first described as concomitant occurrence of acute coronary event and anaphylaxis by Kounis in 1991 [1].

Until today, there is not detailed information about the background, evolution and consequences of Kounis syndrome, as there were reported only 300-400 cases in the literature [2]. The main causes described have been drugs, food, insect stings, different medical conditions. The syndrome is mainly found in Turkey, Greece, Italy and Spain, due to environmental conditions, overdose of certain drugs, inadequate preventive measures [3]. Also, it is important to take into consideration the genetic factor, as patients with Kounis syndrome seem to have a heterozygous E148Q mutation [4].