Title: Kounis Syndrome: Clinicians Dilemma

Category: Acute Coronary Syndromes

Abstract

BACKGROUND: There are various etiologies involved in pathogenesis of Acute coronary syndromes which lead to acute myocardial infarction. Anaphylaxis rarely manifests as vasospastic acute coronary syndrome with or without the presence of underlying coronary artery disease. Kounis syndrome has different clinical variants and presentations. Main pathology involved is mast cell activation due to allergy,hypersensitivity leading to release of inflammatory mediators.

METHOD(S): We would like to present a case series of six patients admitted in our institute during last two years. All patients were investigated for acute coronary syndrome. They were advised to undergo electrocardiogram , enzymes assays , chest radiograph , 2 D echocardiography and coronary angiography along with basic biochemical investigations like lipid profile ,renal function tests ,liver function tests.

RESULT(S): Mean age of patient was 36 years with youngest patient having 22 years and older patient of 62 years. 4 were male patients and 2 were female patients. Out of 6 patients 3 presented with anterior wall, 2 with inferior wall, and 1 with anterolateral wall infarction. All patients were Troponin-T positive. Inciting hypersensitivity agents were snake bite, insect bite, radio contrast, anti-microbials. Serum tryptase was done in 4 patients and was raised in these patients.1 patient had inter-ventricular septum rupture and died. Coronary angiography was done in all patients and 3 patients were normal and remaining 3 showed hemodynamically insignificant coronary artery disease .

CONCLUSION(S): Kounis syndrome is secondary to hypersensitivity to various allergic agents which lead to vasospasm leading to acute coronary syndrome. Main pathological agents are inflammatory mediators like histamine, tryptase, chymase, prostaglandins etc. Our case series support Kounis syndrome case studies done by other authors. Primary focus of treatment should be directed to allergic insult and removal of allergen.

CLINICAL PROFILE OF PATIENTS

SR NO.	AGE/SEX	ECG SUGGESTIVE OF	ETIOLOGY	2D ECHO	CORONARY ANGIOGRAM	SERUM TRYPTASE (ng/ml)	OUTCOMES
1	22/M	ANTERIOR WALL MYOCARDIAL INFARCTION	SNAKE BITE	INTERVENTRICULAR SEPTUM RUPTURE WITH ANTERIOR REGIONAL WALL MOTION ABNORMALITY	NORMAL	60	DIED
2	24/M	ANTERIOR WALL MYOCARDIAL INFARCTION	INSECT BITE	ANTERIOR REGIONAL WALL MOTION ABNORMALITY WITH MILD PERICARDIAL EFFUSION	NORMAL	40	SURVIVED
3	62/F	INFERIOR WALL MYOCARDIAL INFARCTION	CEFTRIAXONE (CEPHALOSPORIN)	INFERIOR WALL MOTION ABNORMALITY	LEFT CIRCUMFLEX 40% STENOSIS	40	SURVIVED
4	52/F	ANTERIOR WALL MYOCARDIAL INFARCTION	RADIOCONTRAST (IOHEXOL)	ANTERIOR WALL MOTION ABNORMALITY	LEFT ANTERIOR DESCENDING 30% STENOSIS	32	SURVIVED
5	48/M	ANTERO-LATERAL WALL MYOCARDIAL INFARCTION	RADIOCONTRAST (IOHEXOL)	ANTERO-LATERAL WALL MOTION ABNORMALITY	NORMAL	NOT DONE	SURVIVED
6	56/M	INFERIOR WALL MYOCARDIAL INFARCTION	AMOXYCILLIN	INFERIOR WALL MOTION ABNORMALITY	LEFT ANTERIOR DESCENDING 50% STENOSIS	NOT DONE	SURVIVED