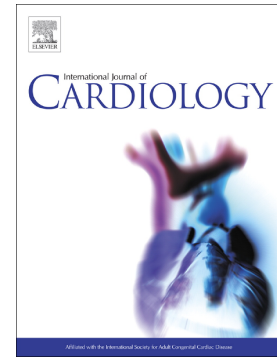


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Kounis syndrome: towards a new classification

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To the Editor,

International Journal of Cardiology has published an update regarding the classification of Kounis syndrome[1,2]. Indeed, three variants of this clinical condition have been described in the literature, whereas coronary angiography can elucidate Kounis syndrome subtypes.

Specifically, type I refers to patients with normal or nearly normal coronary arteries in whom release of inflammatory mediators can induce either unstable angina or acute myocardial infarction representing a subtype of Myocardial Infarction with Non Obstructive Coronary Arteries. Instead, type II refers to patients with pre-existing atheromatous disease, whose clinical manifestations may fluctuate from inflammatory triggered unstable angina to acute myocardial infarction, in case of plaque erosion or rupture[3]. Furthermore, patients with type III demonstrate stent thrombosis (subtype

a) or stent restenosis (subtype b), characterized by infiltration of inflammatory cells on thrombus or coronary artery wall adjacent to stent[3]. Finally, it is demonstrated that Kounis syndrome can manifest in patients with coronary grafts (type IV)[4]. Therefore, we propose a new clinical classification for Kounis syndrome based mostly on the absence or presence of allergic myocardial infarction as the critical feature for differentiating patients. As a result, types I to IV can be further characterized as acute coronary syndromes with absence of myocardial necrosis biomarkers and presence of unstable angina or with presence of myocardial necrosis biomarkers and allergic myocardial infarction. This clear algorithm seems particularly important for pediatric patients with Kounis syndrome, where coronary angiogram is less frequently performed but it also appears to be useful in adult patients[5].

**Abbreviations** Not applicable.

**Data sharing and data accessibility** Not applicable.

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