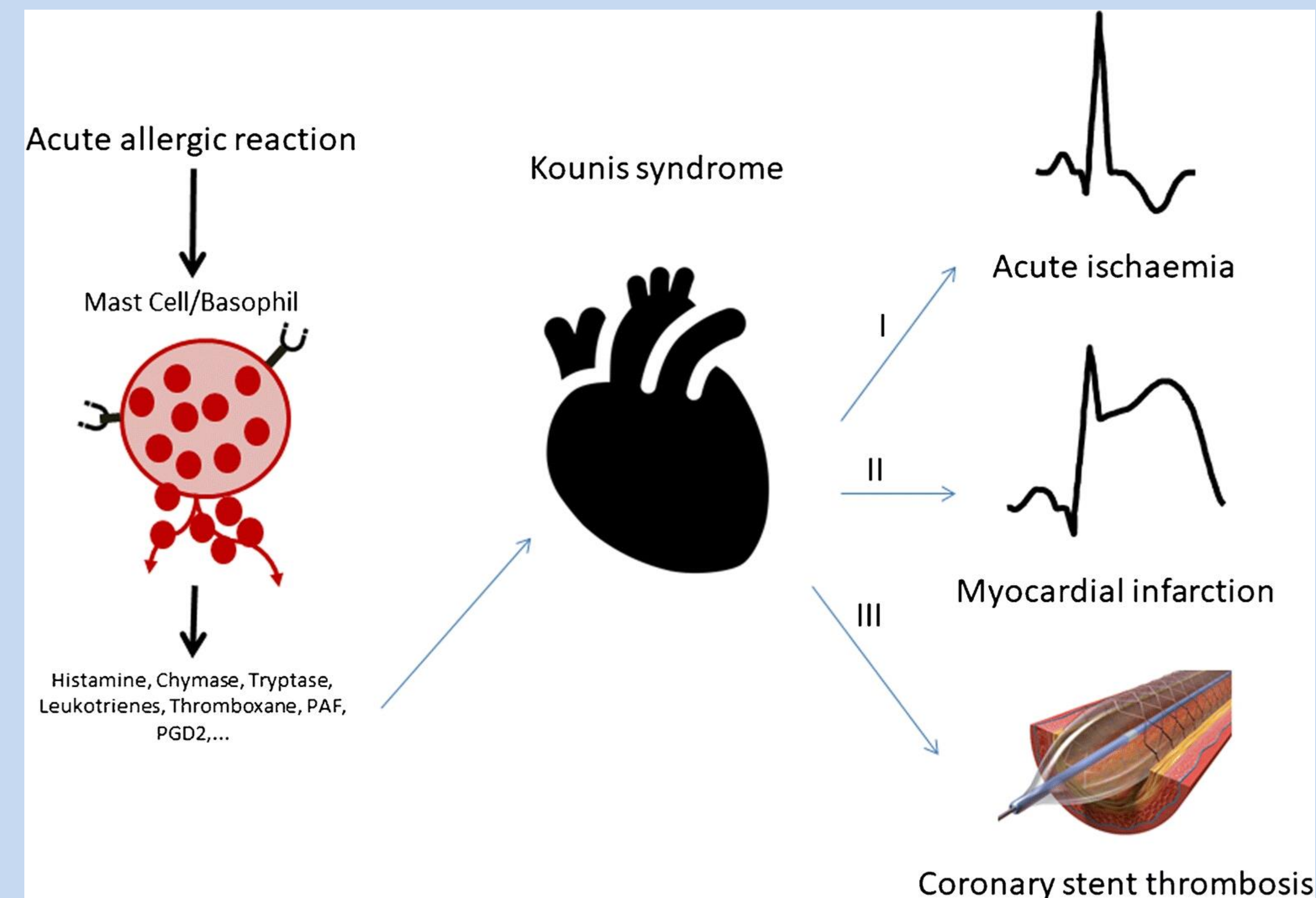


Background

Acute coronary syndrome associated with mast cell and platelets activation in the setting of hypersensitivity insults is defined as a Kounis syndrome.

Inflammatory mediators induce coronary vasoconstriction and platelets activation leading to plaque erosion and rupture. They also induce tachycardia, dysfunctional ventricular contractility and A-V block. Prolonged hypotension is another mechanism for ACS.



Case presentation:

87-year-old female patient with known allergy to Analgin, took Algifen drops for low back pain. Within 10 minutes she had anaphylactic shock with angioedema, epigastric pain and hypotension (pulse 120-160 per minute, irregular; blood pressure 57/30 mmHg; oxygen saturation 80%; GCS 14). Ten minutes after prompt management with O2 and Epinephrine (2mcg/min) and intravenous fluid, the patient was stabilised (GCS 15, pulse 86 per minute, blood pressure 95/45 – 123/100)

Anaphylaxis

2° Cardiac effect / ischaemia

- Cardiac mast cells
 - direct mediator effect
 - coronary artery vasoconstriction
 - 'Kounis syndrome'
- Known or subclinical coronary artery disease
 - hypotension / hypoxia trigger +/- plaque rupture

The diagram shows a cross-section of the heart and its major coronary arteries. It highlights the 'Arch of aorta', 'Left main coronary artery', and 'Left anterior descending coronary artery'. A specific area is labeled 'Narrowing or blockage of the coronary artery', illustrating the potential for acute coronary events during anaphylaxis.

The ECG showed atrial fibrillation with uncontrolled ventricular response together with marked ST elevation in aVR (4.02 mm) and in V1 (2.14 mm). Greater ST elevation in aVR than in V1 usually indicates LMCA lesion (STEMI equivalent). There was also depression in leads I, II, aVF, FT, V6. Patient received Anopyrin 200 mg and Brilique 180 mg. Admission for PCI was denied and patient was admitted to ICU in a nearby hospital with stable vital signs and very mild chest pain. Laboratory tests showed high troponin level. Patient passed away on the third day of hospitalization.

Conclusion:

Kounis syndrome is not that rare, but it is rarely diagnosed and is hugely underestimated. Till now, the diagnosis of syndrome is based on its clinical manifestations.