

## Introduction

Kounis syndrome is an acute coronary event secondary to allergic reaction. The main pathophysiological mechanism is inflammatory mediators released during a hypersensitivity reaction causing coronary vasospasm or atheroma plaque rupture. (1)

## Case description

An 81-year-old Chinese lady with underlying hypertension, dyslipidemia and ischemic heart disease presented to the emergency department with generalized body rashes after having her dinner which consist of fish and vegetables. She denies any previous known allergies. She does not complain of dyspnea and has no gastrointestinal symptoms. Her initial vital signs were stable. However, she became less responsive whilst waiting for her turn. There was no jerky movement, urinary incontinence or chest pain to note. She regained full consciousness before we could attach a cardiac monitor. ECG done showed high lateral infarction which then normalized. CT Brain showed multifocal infarcts with no intracranial haemorrhage. Her initial troponin was negative but repeated was elevated. She was referred for inpatient angiogram, however appointment was given but she defaulted subsequently.

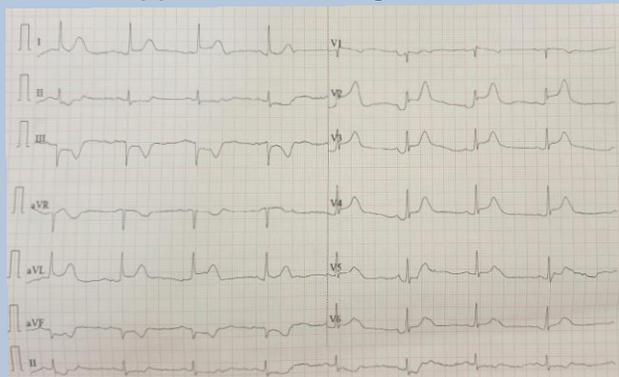


Figure 1 : Initial ECG showing High Lateral Myocardial Infarction

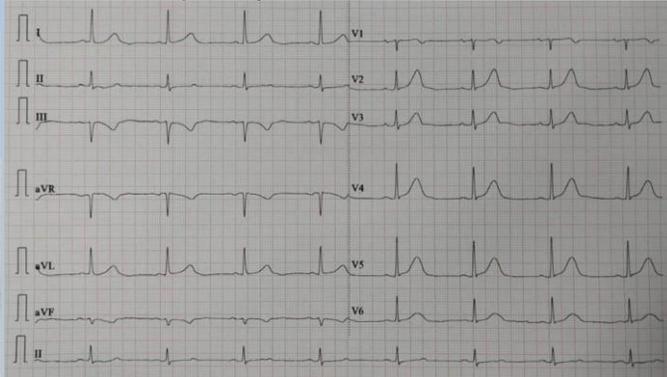


Figure 2 : Subsequent ECG showing sinus bradycardia without ischemia / infarcts

## Discussion

In the setting of an acute coronary event, it is of utmost importance to differentiate between coronary vasospasm and thrombus formation secondary to plaque rupture because the management differs. Coronary angiogram is the only way to tell these apart. In our setting, urgent percutaneous coronary intervention is not readily available. But repeated ECG showed normal sinus bradycardia without thrombolysis tells us that it was most likely a vasospasm that mimics myocardial infarction. The mainstay of treatment for Kounis syndrome is removal of causal agent, administration of corticosteroids and anti-histamine. Vasospasm from type 1 Kounis syndrome can also be treated with vasodilators such as nitrates and calcium channel blockers. For patients with anaphylaxis, adrenaline should be used with caution as it can exacerbates coronary vasospasm and worsen myocardial ischemia. (1)

## Conclusion

In principle, Kounis syndrome is becoming more common as this eccentric diagnosis has gained more attention. The key to diagnosis is a high index of suspicion. Accurate diagnosis avoids unwarranted treatment to our patients.

**Keywords:** allergic reaction, acute coronary event

1. Allergic acute coronary syndrome (Kounis syndrome). Proc (Bayl Univ Med Cent). 2015 Jul;28(3):358–362. doi: [10.1080/08998280.2015.11929274](https://doi.org/10.1080/08998280.2015.11929274)