A RARE CAUSE OF ACUTE CORONARY SYNDROME

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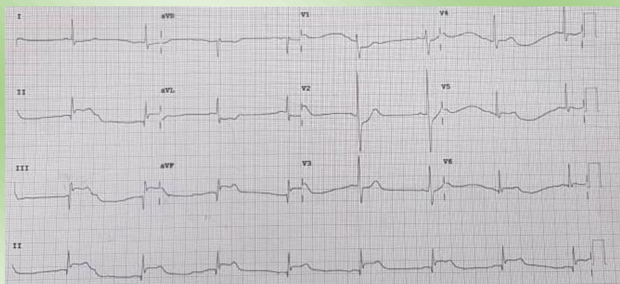
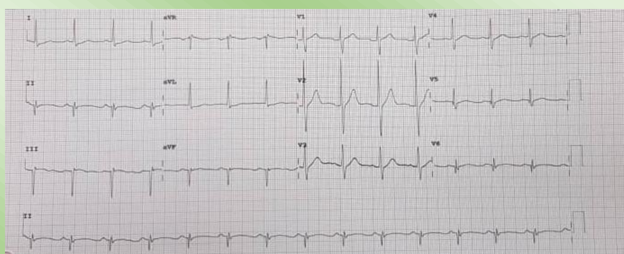
Introduction

Kounis syndrome is concurrence of acute coronary syndrome (ACS) with mast-cell and platelet activation in the setting of allergic reaction. This syndrome is rare and therefore misdiagnosis and mismanagement often occur.

Case report

A 49-year-old gentleman with no known allergy presented to Emergency Department (ED) two hours after bee sting at right temporal scalp. He developed lip swelling and urticarial rash over bilateral upper limbs immediately. He had a near-syncope episode an hour later and was rushed to hospital. He started having central chest pain, associated with shortness of breath and diaphoresis. He was in shock with blood pressure of 68/47 mmHg, heart rate of 47 bpm, and oxygen saturation of 96% under room air. No angioedema or rash was noted upon arrival. ECG showed ST-segment elevation over inferior leads. Bedside ultrasonography showed regional hypokinesia over inferior wall. Intravenous atropine and fluid resuscitation were administered before thrombolysis with intravenous tenecteplase. Double antiplatelet therapy was also given. Subsequently, intravenous chlopheniramine and hydrocortisone was given. Subsequent ECG showed resolution of ST-segment elevation. Patient was then sent to Pusat Jantung Sarawak. Coronary angiogram was performed and demonstrated minor irregularities at right coronary artery only. Patient was discharged well three days later.





ECG shown ST-segment elevation at inferior leads and resolution after thrombolysis

Discussion and Conclusion

The dilemma was to establish diagnosis because the treatment for anaphylaxis and acute STEMI is completely different. Adrenaline administration, which is the mainstay treatment for anaphylaxis, can worsen coronary vasospasm and myocardial ischaemia. Moreover, the use of thrombolysis was not justified if the dilemma was not solved. Use of morphine as analgesic, which is the common practice in severe angina, was not recommended in anaphylaxis as it may induce histamine release. In conclusion, the management of Kounis syndrome is challenging because we have to manage both anaphylaxis and ACS simultaneously and carefully to avoid drug interaction which may worsen the patient’s condition.

References

Kounis, N. Kounis syndrome: an update on epidemiology, pathogenesis, diagnosis and therapeutic management. *Clinical Chemistry and Laboratory Medicine (CCLM)*, 54(10), pp. 1545-1559. doi:10.1515/cclm-2016-0010