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When Migraines Trigger a Heart Crisis: A Case of Ergotamine-Induced Coronary Vasospasm

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INTRODUCTION

Ergotamine, an ergot alkaloid commonly used to treat migraines and cluster headaches, can cause vasospasm via its action on serotonin and α-adrenergic receptors. Although rare, ergotamine-induced vasospasm can lead to serious complications, including mimicry of acute coronary syndrome (ACS). Recognising this condition early is crucial to avoid misdiagnosis and ensure appropriate treatment. This case highlights a paediatric patient with ergotamine-induced vasospasm presenting as ACS.

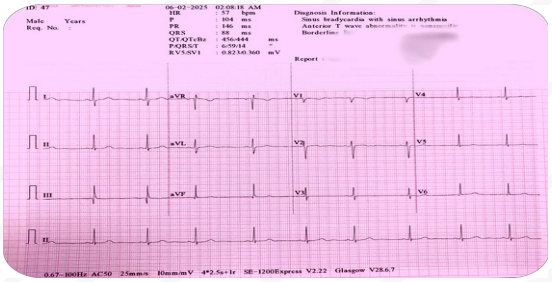
Keyword :ergotamine, vasospasm, migraine

CASE DESCRIPTION

A 13-year-old girl with three-day history of headache was treated with Caffox (ergotamine 1mg, caffeine 100mg) prescribed by a general practitioner. She presented to the emergency department (ED) with acute, central chest pain, palpitation and diaphoresis. On examination, she was hemodynamically stable with normal systemic examination. Her ECG revealed sinus bradycardia with no ischemic changes. Bedside focused echocardiography showed normal cardiac function. The serial serum troponin I was elevated (104.5 ng/L to 154.4 ng/L) with normal renal function and inflammatory markers. The patient was admitted to the cardiology ward and was planned for cardiac MRI as an outpatient.

DISCUSSION

Ergotamine is a potent ergot alkaloid that functions as an α-adrenergic, serotoninergic and dopamine-receptor agonist. It can induce coronary vasospasm, which is often associated with ischemic electrocardiographic changes and angina. Although rare, this condition can mimic acute coronary syndrome (ACS), presenting diagnostic challenges, even in children. In this case, the patient's presentation highlighted the potential cardiovascular risks associated with ergotamine, necessitating careful consideration in the pediatric population.



The ECG shows sinus bradycardia

CONCLUSION

This case emphasises the need to consider ergotamine as a possible cause of chest pain in patients with migraines history. Clinicians should exercise caution when prescribing ergotamine to children. Early identification and cessation of ergotamine, combined with appropriate vasodilator therapy, are essential to avoid unnecessary interventions and ensure favourable outcomes.

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