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RAPID PREHOSPITAL INTERVENTION ON BLOOD PRESSURE CONTROL IN A CASE OF SUSPECTED CEREBRAL HEMORRHAGE: THE ROLE OF IV LABETALOL

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INTRODUCTION

Rapid assessment and IV Labetalol administration in prehospital care (PHC) are crucial for suspected intracranial haemorrhage. Timely blood pressure control helps prevent hematoma expansion, reducing complications. Early intervention ensures patient stabilization before hospital arrival for definitive neuroimaging and specialized management.

CASE REPORT

We responded to an ambulance call for a 38-year-old Malay male presenting with a sudden-onset thunderclap headache. Upon arrival, the patient was lying comfortably in bed but reported an inability to get up. During the assessment, he experienced a second episode of thunderclap headache with a pain score of 10. A BEFAST assessment was negative. Initial vital signs in the ambulance were BP: 242/149 mmHg, Pulse: 102 bpm, and SpO_2: 99% on room air. A repeated BP reading was 250/156 mmHg. After consulting the on-call consultant, IV labetalol 10 mg was administered. Ten minutes post-administration, BP was 210/139 mmHg, and pulse was 87 bpm. Due to persistent headache, IV Tramadol 50 mg and IV Metoclopramide 10 mg were given. A second dose of IV Labetalol 10 mg was administered 20 minutes later, leading to improved vitals: BP 198/100 mmHg, Pulse 82 bpm, SpO_2 100% on room air, and pain score 5/10. The patient was triaged to the Red Zone with a provisional diagnosis of hemorrhagic cerebrovascular accident (CVA) or arteriovenous malformation (AVM). Following stabilization, a CT brain scan confirmed a right basal ganglia hemorrhage.

DISCUSSION

This example underscores the importance of prompt identification and intervention for suspected cerebral haemorrhage in prehospital settings. The patient's thunderclap headache and severe hypertension (250/156 mmHg) necessitated prompt blood pressure management to avert haematoma expansion. Labetalol was administered in two dosages, successfully reducing blood pressure without inducing hypotension. Pain relief with IV Tramadol and Metoclopramide improved comfort. Timely triage to the Red Zone enabled rapid neuroimaging, confirming a right basal ganglia haemorrhage. This case underscores the critical role of prehospital BP management in neurological emergencies.

CONCLUSION

IV Labetalol is a valuable antihypertensive agent in the early management of ICH in prehospital settings, helping to control BP safely and prevent hematoma expansion. However, its administration requires appropriate training, protocol adherence, and careful patient selection to ensure optimal outcomes.

KEYWORDS: *PHC, headache, Labetalol*

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