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CASE REPORT OPEN ACCESS

SEVERE PAROXYSMAL HYPERTENSION (PSEUDOPHEOCHROMOCYTOMA) CASE REPORT

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ABSTRACT

Paroxysmal hypertension is characterized by sudden, episodic elevations in blood pressure accompanied by autonomic symptoms such as headache, palpitations, and diaphoresis. These episodes may closely mimic pheochromocytoma, making diagnosis challenging when biochemical and imaging studies are negative. We present a case of severe paroxysmal hypertension in a middle-aged male who experienced recurrent hypertensive crises with normal inter-episodic blood pressure. This case highlights the importance of recognizing pseudopheochromocytoma as a distinct clinical entity and outlines an effective management strategy.

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INTRODUCTION

Paroxysmal hypertension refers to abrupt, transient episodes of severe blood pressure elevation, often associated with headache, palpitations, diaphoresis, anxiety, and a sense of impending doom. While pheochromocytoma is a classical cause, most patients do not demonstrate biochemical evidence of catecholamine excess. This condition, sometimes termed pseudopheochromocytoma, is underrecognized and frequently misdiagnosed, leading to repeated emergency visits and extensive investigations. Early identification is crucial to prevent hypertensive complications and improve patient outcomes.

CASE PRESENTATION

A 45-year-old male presented to the emergency department with recurrent episodes of severe headache, palpitations, sweating, and a sense of impending doom for three months. Each episode occurred abruptly, lasted approximately 30–60 minutes, and resolved spontaneously. There was no history of sustained hypertension, diabetes mellitus, renal disease, or substance abuse. During an acute episode, his blood pressure was recorded at 230/130 mmHg, pulse rate 118 beats/min, and respiratory rate 22/min. The patient was anxious and diaphoretic. Cardiovascular, respiratory, abdominal, and neurological examinations were otherwise unremarkable.

Between episodes, blood pressure readings were consistently within normal limits, a feature commonly described in paroxysmal hypertension.

Investigations: Laboratory investigations including complete blood count, renal and liver function tests, serum electrolytes, and thyroid function tests were within normal limits. Electrocardiogram showed sinus tachycardia during hypertensive episodes. Two-dimensional echocardiography revealed mild concentric left ventricular hypertrophy. Plasma free metanephrines and 24-hour urinary catecholamines were within normal limits, helping exclude pheochromocytoma. Contrast-enhanced CT of the abdomen did not reveal any adrenal or para-adrenal mass. Secondary causes of hypertension were effectively ruled out.

Diagnosis: Based on recurrent episodes of severe hypertension with autonomic symptoms and the absence of biochemical or radiological evidence of catecholamine excess, a diagnosis of severe paroxysmal hypertension (pseudopheochromocytoma) was established.

Treatment: Acute hypertensive episodes were managed with intravenous labetalol and oral clonidine, resulting in rapid blood pressure reduction. For long-term blood pressure control, the patient was started on an alpha-blocker (prazosin) and a beta-blocker (metoprolol). A psychiatric evaluation revealed significant psychological stress, which has been strongly associated with pseudopheochromocytoma. Anxiolytic therapy was initiated.

Lifestyle modifications including stress reduction and dietary salt restriction were advised in accordance with established hypertension guidelines.

Outcome and Follow-Up: Over a six-month follow-up period, the frequency and severity of hypertensive episodes significantly decreased. The patient remained normotensive between episodes and reported substantial improvement in quality of life.

DISCUSSION

Paroxysmal hypertension closely resembles pheochromocytoma but lacks biochemical evidence of catecholamine excess. The underlying pathophysiology remains unclear; however, autonomic dysregulation, increased sympathetic activity, and psychological stress are believed to play major roles. Failure to recognize this condition may result in repeated hospital admissions, unnecessary investigations, and patient distress. A combined antihypertensive and psychological treatment approach is often effective.

CONCLUSIONS

Severe paroxysmal hypertension should be considered in patients presenting with episodic hypertensive crises and autonomic symptoms after exclusion of secondary causes. Early diagnosis and targeted therapy can prevent complications and significantly improve patient outcomes.

Patient Consent: Written informed consent was obtained from the patient for publication of this case report.

Conflicts of Interest: The authors declare no conflicts of interest.

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