

Symptomatic Hypertension: Clinical Features, Diagnostics, and Treatment Approaches

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Annotation: This article analyzes the clinical features, etiology, diagnostic stages, and treatment approaches of symptomatic (secondary) hypertension. Clinical observations conducted at the Bukhara Regional Clinical Hospital focused on age-specific characteristics, symptomatology, the role of modern diagnostic tools, treatment strategies, and individual psychological approaches. The study highlights the importance of early detection and etiology-based treatment of symptomatic hypertension.

Keywords: symptomatic hypertension, diagnostics, kidney diseases, endocrine system, treatment, age-specific progression.

Introduction

Arterial hypertension is one of the leading chronic diseases globally. While approximately 90–95% of cases are primary (essential) hypertension, the remaining 5–10% arise due to underlying medical conditions and are classified as symptomatic (secondary) hypertension. This type is often associated with renal, endocrine, or cardiovascular disorders and, if not identified in time, can lead to severe complications. Differentiating symptomatic hypertension from primary hypertension is critical for targeted treatment.

Methods

The study was conducted between 2024–2025 at the multidisciplinary departments of the Bukhara Regional Clinical Hospital. A total of 52 patients diagnosed with arterial hypertension were observed, of which 16 were suspected of having symptomatic hypertension and underwent in-depth examinations.

Inclusion Criteria:

- ✓ Blood pressure $\geq 140/90$ mmHg
- ✓ Ineffective response to antihypertensive therapy
- ✓ Age: 18–65 years
- ✓ Presence of symptoms: hypokalemia, endocrine manifestations, renal dysfunction

Parameters analyzed included: clinical symptoms and history, biochemical blood tests (creatinine, K^+ , Na^+ , glucose, cortisol, aldosterone, renin), 24-hour blood pressure monitoring (ABPM), ultrasound and CT/MRI of kidneys and adrenal glands, ECG, and echocardiography.

Results

Out of the 52 patients, 16 (30.7%) were diagnosed with symptomatic hypertension.

Causes identified:

- ✓ Renal diseases: 7 patients (43.7%) – chronic glomerulonephritis, renal artery stenosis
- ✓ Endocrine disorders: 6 patients (37.5%) – aldosteronism, pheochromocytoma, Cushing's syndrome
- ✓ Cardiovascular: 2 patients (12.5%) – aortic coarctation
- ✓ Drug-induced: 1 patient (6.3%) – prolonged corticosteroid use

Clinical signs:

- ✓ 87.5% had persistent nighttime hypertension
- ✓ 68.7% showed treatment resistance
- ✓ 56.2% exhibited hypokalemia
- ✓ 31.2% had endocrine symptoms (hirsutism, sweating, tachycardia)

Treatment outcomes:

- ✓ 14 patients achieved stabilization of blood pressure
- ✓ 2 patients required surgery (adrenalectomy, stenting)
- ✓ All patients received lifestyle modification counseling

Discussion

The study demonstrated that symptomatic hypertension differs from primary hypertension in clinical presentation and treatment outcomes. Early onset, hypokalemia, and poor response to standard therapy should raise suspicion for a secondary cause. Renal and endocrine disorders remain leading causes of secondary hypertension. Diagnostic tools such as ABPM, hormonal assays, and imaging played a crucial role. Timely detection and addressing the root cause significantly improve prognosis and long-term blood pressure control. Patient-centered care, including psychological support and individualized advice, enhances treatment effectiveness.

Conclusion

Symptomatic hypertension accounts for a significant subset of hypertensive cases. This clinical study underscores the importance of identifying the underlying cause and providing targeted treatment. Observations conducted as a 4th-year medical student contributed practical insights into diagnosing and managing this less common but high-risk condition.

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