

Medical Article: Hypertension (Overview for Medical Students)

Introduction

Hypertension is one of the most common chronic diseases worldwide and a major risk factor for cardiovascular morbidity and mortality. Because it is often asymptomatic, it is known as the "silent killer." Early recognition and appropriate management can significantly reduce the risk of stroke, myocardial infarction, heart failure, and chronic kidney disease.

Definition

Hypertension is generally defined as persistently elevated arterial blood pressure. Diagnosis requires repeated blood pressure measurements on separate occasions or confirmation with ambulatory or home blood pressure monitoring when appropriate.

Risk Factors

Important risk factors include increasing age, family history, obesity, excessive dietary sodium intake, physical inactivity, smoking, diabetes mellitus, chronic kidney disease, and excessive alcohol consumption.

Clinical Features

Most patients are asymptomatic. When symptoms occur, they may include headache, dizziness, blurred vision, or signs of target-organ damage in severe or longstanding disease.

Diagnosis

Evaluation includes accurate blood pressure measurement, history, physical examination, assessment of cardiovascular risk factors, and laboratory investigations such as renal function, electrolytes, fasting glucose, lipid profile, and urinalysis.

Management

Treatment begins with lifestyle modification, including weight reduction, regular exercise, dietary salt restriction, smoking cessation, and a healthy diet.

Pharmacological therapy may include ACE inhibitors, ARBs, calcium channel blockers, thiazide diuretics, or other agents depending on the patient's clinical profile.

Conclusion

Hypertension remains a preventable and treatable disease. Understanding its pathophysiology, diagnosis, and evidence-based management is essential for every medical student and healthcare professional.