

Treatment of hypertension-should we be more aggressive?

ABSTRACT

In 2014 approximately one billion adults or 22 % of the world population have hypertension (HTN), with 9.4 million deaths in 2010. The rates of HTN in children and adolescents have increased in the last 20 years in the United States. Lowest rates of HTN in the rural India and highest in Poland. HTN results from a complex interaction of genes and environmental factors. HTN is classified as primary or essential, is due to lifestyle and genetic factors, and secondary HTN is due to identifiable cause e.g., chronic kidney disease, narrowing of the kidney arteries and endocrine disorder. Several environmental factors influence HTN. High salt intake, lack of exercise, obesity, and depression. Role of caffeine and vitamin D deficiency are less clear. Frequent symptoms include headaches, lightheadedness, vertigo, tinnitus, and altered vision. Severely elevated blood pressure equal or greater than a systolic 180 or diastolic 110 is considered as HTN emergency. HTN in gestation occurs in approximately 8-10% of pregnancies. Ambulatory blood pressure monitoring over 12 to 24 hours is the most accurate method to confirm diagnosis. Goal of blood pressure control a target below the range of 140-160/90-100 mmHg, and change in lifestyle. First line of medications for HTN include thiazide-diuretics, calcium channel blockers, angiotensin converting enzyme inhibitors and angiotensin receptor blockers. Prevention of HTN include maintain normal body weight, reduce dietary salt intake, regular exercise, effective lifestyle change, limit alcohol consumption, and diet rich in fruit and vegetables.