

Systemic Hypertension

Systemic Hypertension

Def: a condition in which the force of the blood against the arteries is abnormally high.

Normal BP is a range, differing from person to person and according to age.

A normal blood pressure is less than 120/80

Hypertension is a major cause of death, hence the need of yearly check-ups in all adults

Hypertension is divided into

- a) Primary Hypertension
- b) Secondary Hypertension

95 % cases are of Hypertension are Essential
HPTN

5% cases are secondary HPTN

Primary HPTN (Idiopathic HPTN)

- the cause is not known ie **idiopathic**, but it's known to be associated with the following
- positive family history, age
- obesity
- excessive alcohol intake
- salt intake
- stress
- fetal factors (LBW)

Secondary HPTN- the cause is known

- 1) **Renal** eg glomerulonephritis, PKD
- 2) **Endocrine** eg Hyperthyroidism, Phaeochromocytoma, Cushing's syndrome, Conn's syndrome, acromegaly
- 3) **Drugs** eg NSAIDs, OCP, steroids, MAOI
- 4) **Congenital** eg coarctation of the aorta

Symptoms

Condition can be asymptomatic for years hence the need for periodic check ups in all adults.

Patient can experience, headache, fatigue, breathlessness, nose-bleeding

With Secondary HPTN there can be symptoms of underlying cause

Eg phaeochromocytoma will present with headache, sweating, palpitations

Physical Examination

Obesity?

Radio-femoral delay (coarctation of the aorta)

Cardiomegaly

Renal artery bruits (renal artery stenosis)

Fundoscopy- retinopathy

Grading of retinopathy?

Complications of HPTN

Mostly there is end organ damage

- Brain (stroke)
- Eye (hypertensive retinopathy)
- Heart (heart failure)
- Kidney (nephropathy)

Others- malignant hypertension

Investigations

Urinalysis

RBS

Lipid profile

ECG

Echo-cardiography

Renal USS

MRI of the aorta (coarctation of the aorta)

Treatment

Non pharmacological therapy/ Lifestyle modification

- Weight reduction
- Exercise
- Diet
- Stop cigarette smoking
- Reduce on alcohol intake-

Pharmacotherapy

Use **ABCD**

- A**ce-inhibitors – captopril, enalapril (S.E is a dry cough)
- A**RBs – losartan
- B**-blockers – atenolol, propranolol
- C**alcium channel blockers – nifedipine
- D**iuretic
 - a) Loop diuretic eg furosemide
 - b) Potassium sparing diuretic eg spironolactone