

## CONTROLLING BLOOD PRESSURE IN PRIMARY HYPERTENSIVE PATIENTS

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### ABSTRACT

Hypertension is one of the common lifestyle disorders which cause a high risk for cardiovascular disorders. Screening is essential for healthy people to identify if they have Hypertension. The risk factors includes : Increasing age, Excessive alcohol intake, Diabetes mellitus, Elevated serum lipids, Excess dietary sodium etc. Hypertension is primarily asymptomatic. Later, secondary symptoms will develop due to effects on blood vessels. The risk of cardiovascular disease in people with hypertension is determined by the level of B.P, the presence of target organ disease and other risk factors. Patients are assigned to risk groups based on these factors to determine the treatment modality. Stress reduction and management help reduce blood pressure. Relaxation techniques are exercises or techniques that reduce stress by decreasing sympathetic nervous system activity and can reduce blood pressure. These techniques are used in combination with drug therapy for patients with severe hypertension.

With adequate treatment and lifestyle modifications, hypertension can be well controlled and the patient can lead a normal life. By maintaining the normal blood pressure level, the individual can live without any risk of complications.

**Key Words:** hypertension, Planned teaching programme, blood pressure.

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## INTRODUCTION

In India, among adults one in three was found to have a raised blood pressure and about half of them remained undetected during WHO surveys. The number of hypertensives in India was expected to nearly double from 118 million in 2000 to 213 million by 2025. However, recently it is estimated that among those aged 25 years in 2013, there are already about 199 million hypertensives currently which include 103 million men and 96 million women (Samlee, 2013).

American Society of Hypertension (2011) stated that having high blood pressure increases the risk for heart disease and stroke, leading causes of death in the United States. High blood pressure was a primary or contributing cause of death for 348,000 Americans in 2008, or nearly 1,000 deaths a day. 67 million American adults (31%) have high blood pressure; that's 1 in every 3 American adults. 36 million American adults with high blood pressure don't have it under control.

Hypertension is one of the common lifestyle disorders which cause a high risk for cardiovascular disorders. Hypertension is sometimes called the "silent killer" because people who have it are often symptom free. Screening is essential for healthy people to identify if they have Hypertension. Once identified, elevated blood pressure should be monitored at regular intervals because Hypertension is a life-long condition. Any elevation from the normal blood pressure ie., 120/ 80 mm of Hg should be considered and measures should be taken to prevent complications.

### What is Hypertension ?

Hypertension or high blood pressure is the persistent systolic blood pressure greater than or equal to 140 mm of Hg and diastolic blood pressure greater than or equal to 90 mm of Hg or the constant elevation of the systolic or diastolic pressure above 140/ 90 mm of Hg. It is Individuals whose blood pressure is higher than 140/90 mm Hg often become patients treated for serious cardiovascular problems. 77% of Americans treated for a first stroke, 69% who have a first heart attack and 74% with congestive heart failure have blood pressure over 140/90. Although hypertension is a highly prevalent disease in older populations, risk factors for developing hypertension have been studied primarily in younger cohorts.

## SUSTAINED DEVIATION OF BLOOD PRESSURE

### Enumerate The Classification Of Hypertension

#### Classification

According to the level of blood pressure, the WHO/ ISH classifies Hypertension into 3 grades.

BP	Gr I	Gr-II	Gr-III
Systolic (mmhg)	140-159	160-179	>180
Diastolic(mmhg)	90-99	100-109	>110

## ENLIST THE RISK FACTORS

### Risk Factors

- Increasing age
- Excessive alcohol intake
- Diabetes mellitus
- Elevated serum lipids
- Excess dietary sodium
- Gender: Men in young adulthood and Women after 55 years
- Family history of Hypertension in close blood relatives
- Obesity
- Sedentary lifestyle
- Socioeconomic status: low socioeconomic, less educated people
- Stress

## DESCRIBE THE CLINICAL MANIFESTATIONS

### Clinical Manifestations

Hypertension is primarily asymptomatic. Later, secondary symptoms will develop due to effects on blood vessels. These include;

- Fatigue
- Decreased activity tolerance
- Dizziness
- Palpitations
- Angina
- Dyspnoea

## EXPLAIN THE MANAGEMENT OF HYPERTENSION MANAGEMENT

The goal of hypertension treatment is to prevent death and complications by achieving and maintaining arterial blood pressure at 140/ 90 mm Hg or lower. The guidelines for the management exists in the following areas:

- B.P elevation should usually be assessed carefully over several months before initiating treatment
- The decision to treat hypertension is made in the context of overall cardiovascular risk.
- Lifestyle modifications should provide the foundation for treatment

### Risk Stratification

The risk of cardiovascular disease in people with hypertension is determined by the level of B.P, the presence of target organ disease and other risk factors. Patients are assigned to risk groups based on these factors to determine the treatment modality.

**Risk Group A:** Patients with high normal B.P or stage 1, 2 or 3 hypertension who do not have cardiovascular disease, target organ disease or other risk factors.

**Risk Group B :** Patients with hypertension who do not have cardiovascular disease or target organ disease have one or more cardiovascular risk factors but do not have diabetes.

**Risk Group C :** Patients with hypertension who have cardiovascular disease, target organ damage or diabetes.

### Drug Therapy

Once detected that the person have high blood pressure, treatment with Antihypertensives are started. The general goals of drug therapy are to achieve B.P less than 130/ 80 mm of Hg in young adults and 140/ 90 mm of Hg in older adults.

- The purpose of drug therapy is to maintain blood pressure within normal ranges by the simplest and safest means possible with the fewest side-effects for each individual patient. The drugs should be selected depending on various factors including case of use, side-effects and co-existing medical conditions. The commonly used drugs are;
- Atenolol
- Minipress
- Captopril etc
- Take medications regularly as prescribed to control the blood pressure and to prevent complication
- Take drugs in correct dose in correct time
- Do not skip any dose.
- Notify the physician if you are taking medicines for any other diseases or over the counter medicines.
- Most blood pressure-lowering drugs do not cause significant side-effects. If you develop a reaction to a medication or you are unable to afford it, talk to your doctor.

### Lifestyle Modifications

Life-style modification is the first step in managing hypertension. These modifications are directed towards reducing B.P and overall cardiovascular risk factors. These include;

- Dietary changes
- Regular physical activity
- Limitation of alcohol intake
- Avoidance of tobacco use

### Dietary Changes

The patient should make a change in his dietary pattern to control or reduce his weight and to manage the Blood pressure level. Diet should include appropriate portion of low- fat foods. He should also avoid high fat snacks and reduce his total daily calorie intake.

### DASH Diet

Dietary Approach to Stop Hypertension" is a dietary plan recommended by the American Heart Association. It significantly lowers B.P".

### Alternative/ Complementary Therapies

There are many different types of complementary and alternative treatments believed to be effective for treating high blood pressure. Most of these contribute to the stress management.

### Stress Reduction

Stress reduction and management help reduce blood pressure. Relaxation techniques are exercises or techniques that reduce stress by decreasing sympathetic nervous system activity and can reduce blood pressure. These techniques are used in combination with drug therapy for patients with severe hypertension.

## ENLIST THE COMPLICATIONS OF HYPERTENSION

### Complications

The most common complications of Hypertension are target organ diseases.

- Hypertensive Heart disease
- Peripheral vascular disease
- Cerebrovascular disease
- Nephro sclerosis
- Retinal damage

## CONCLUSION

With adequate treatment and lifestyle modifications, hypertension can be well controlled and the patient can lead a normal life. By maintaining the normal blood pressure level, the individual can live without any risk of complications

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