The Official Magazine Of Baliga Diagnostics Pvt. Ltd.



# HYPERTENSION Are YOU In Control?



# Welcome to the June edition of Sowkhya Magazine<sup>™</sup>.

In this edition of Sowkhya Magazine<sup>™</sup>, we talk in detail about hypertension, and how it can affect literally every vital system in our body. From the kidneys to the heart and to the brain, hypertension, or high blood pressure in simple terms can damage each of these structures and more if the blood pressure is not treated quickly.

In India, we follow a lifestyle where our food is full of spice and flavour. Salt forms a big part of our diet, and food without salt is something that we cannot imagine eating regularly. Sadly, this is the case when it comes to managing high blood pressure, and salt restriction is the number one piece of advice I give all my patients when it comes to blood pressure control. In fact, just observing these changes, along with the use of certain lifestyle measures like a healthy diet, regular exercise and weight loss can help maintain a normal blood pressure without needing any medication.

It may not seem like much, but hypertension is a global public health problem that needs attention immediately. Literally 1 in every 3 Indians is hypertensive, and the worrying part is that a diagnosis is made at a very young age. Over 1 million people die every year from hypertension related events such as heart disease and stroke.

Inside this edition of Sowkhya Magazine, we have also spoken about some commonly encountered clinical conditions in our clinic. We have kept the topics broad and informative, and as always hope that it helps you lead a healthier life in the years to come.

Finally, I would like to wish you all good health and happiness in the year ahead. It is already the middle of the year, and our success is down to your readership and support. Thank you and god bless!



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Editor, Sowkhya Magazine

# **Hypertension - The Silent Killer**

In the world of medicine, the blood pressure plays an important role. It is a well known fact that a high blood pressure can be a strong risk factor in the development of cardiovascular disease. However, many of us just do not realise that we may have high blood pressure. In fact, many a time, patients who turn up to our clinic for a routine check up have high blood pressure, and they just were not aware of it!

If left uncontrolled, blood pressure can have a number of detrimental effects on one's health. It can damage the eyes and the kidneys, increase the risk of having a heart attack and increase the chances of having a stroke. These illnesses can have a significant impact on the patient, so it should come as no surprise that hypertension is now called the 'silent killer'.



#### The numbers

The statistics of hypertension in India are a little frightening. The current WHO statistics state that 33% of Indians over 25 have hypertension - that is 1 in every 3 people! There are nearly 200 million people in India who suffer from high blood pressure, and this number is estimated to rise by another 13 million in the next 10 years. In the past, hypertension was believed to be a condition that affected the urban population alone, but recent statistics have suggested that there is a near equal incidence of hypertension amongst both rural and urban populations.

It may be interesting to hear that hypertension is regarded as the most important non-communicable disease that is responsible for a great deal of disability and death from cardiovascular disease globally. 1 out of 10 deaths in India are currently attributed to hypertension, and it is predicted that by 2020 there will be a 111% rise in cardiovascular deaths due to hypertension.

Clearly, these numbers are of concern and must be addressed.

#### The problem

With hypertension come a variety of different clinical problems. Primarily, having a constantly high blood pressure can exert a great deal of stress on the arteries and the heart, causing thickening of both these structures. If this stress remains unchecked, patients can eventually develop a heart attack or heart failure that requires emergency medical treatment.

But the problems do not end there. Kidney disease is a well known consequence of hypertension, and if the blood pressure remains elevated, kidney damage can occur which over time may require dialysis. Cerebrovascular disease, often called stroke, is also a result of high blood pressure, and can result in a disability and impairment in the quality of life of the patient. Hypertension has also been implicated in the development of memory loss, i.e. dementia.

Hypertension can also damage the eyes, in particular the blood vessels. Termed 'hypertensive retinopathy', this condition can cause blurring of vision, fluid build up in the eyeball and ultimately loss of vision. In men, hypertension can cause sexual dysfunction, causing a loss of libido. In women, there can be a reduction in the blood flow to the genitals.

#### Time to get checked!

All the above can occur without the patient's knowledge, giving hypertension the name 'silent killer'. There is no doubt that by controlling the blood pressure through a proper diet and exercise, along with regular medication, these problems can be prevented. So isn't it time you got your blood pressure checked today?

## **Blood Pressure - Understanding the Basics**

It is essential for every patient to have a clear understanding of what blood pressure actually means. In this chapter, we shall take a brief look at how blood flows through the arteries and what a doctor means when they mention the word 'blood pressure'.

#### Defining blood pressure

Blood pressure, or BP, is defined as the force that blood flowing through the arteries exerts on the walls of the blood vessel that is flowing through. When our heart beats, it pumps blood through specialised blood vessels called arteries. Within our body, there are hundreds of arteries that carry blood that is rich in oxygen and nutrients to different tissues and vital structures. The blood that is pumped out of the heart is pushed through the arteries at a particular force so that it can reach each and every part of our body. This force exerted is what is called BP.

BP is measured in millimetres of mercury, often written as 'mmHg'.

#### What is normal blood pressure?

When you have your blood pressure checked, you may hear your doctor stating that your blood pressure is 124/80 mmHg. For the experienced patient with a long history of high blood pressure, these numbers might actually mean something. However, for an individual who is visiting a doctor for the first time, these numbers can sound pretty much like a complex mathematical equation!

So what exactly are these numbers? Well, the number on the top (124) is called the systolic blood pressure while the number at the bottom (80) is called the diastolic blood pressure. The systolic blood pressure is the pressure exerted by the flowing column of blood when the heart muscle contracts. The diastolic blood pressure is the pressure exerted by the same column of blood when the heart muscle relaxes. The normal blood pressure in human beings has been defined by the American Heart Association as a systolic blood pressure of less than 120 mmHg and a diastolic blood pressure of less than 80 mmHg. Anything about this value can be classed as high blood pressure, though by definition, high blood pressure is defined as a systolic blood pressure over 140 mmHg and a diastolic blood pressure of over 90 mmHg.

#### How is BP measured?

The device used to measure blood pressure is called a sphygmomanometer.

When measuring BP, the inflatable cuff of the sphymomanometer is placed around the arm in a way that the tubing that emerges from this cuff lies directly over the brachial artery. Once the cuff has been placed around the arm, the tubing is attached to the sphygmomanometer. When using a mercury device, the doctor will start to inflate the cuff to a point where he or she feels it is sufficiently elevated to occlude the brachial artery (this is indicated by a disappearance of the radial pulse). The cuff is then slowly deflated and the doctor will place the stethoscope over the brachial artery at the front of the elbow. The cuff is then gradually deflated. During deflation, the doctor will carefully listen for the emergence of a knocking sound in the stethoscope. These are knocking sounds are what are called as Korotkoff sounds.

As the cuff continues to deflate, the Korotkoff sounds increase in intensity and gradually decrease to a point where it completely disappears. This point at which the Korotkoff sounds are no longer audible marks the diastolic blood pressure.

This theory also applies to a similar blood pressure measuring apparatus called an aneroid BP recorder. However, a digital BP apparatus does the whole job by itself.

So there you have it - the basics of blood pressure. So isn't it time you went out and got it checked?

## **Constipation - Hoping For Movement**

You wake up in the morning and start your normal daily activities. You brush your teeth, have a cup of coffee and sit yourself on the toilet, hoping for bowel movement. You look in front of you at the poster you playfully placed on the toilet wall that reads 'you are not here to sit and wonder, but to sh\*t and fart like thunder!' Sadly, nothing happens. And this is not the first time.

Difficulty in having a regular bowel movement is called constipation. It is a common problem amongst the Indian population, including adults and children. Yes, it does sound rather surprising given the diet that we follow, but there can a number of contributing factors. One of the primary causes for constipation is the lack of sufficient water intake. Water that is consumed allows for the generation of soft and bulkier stools, which can be passed a lot more easily. Leading a sedentary lifestyle, advancing age, low fibre diet and certain drugs such as diuretics (frusemide etc.) can be causes as well. In fact, using too many laxatives to aid bowel movement can in fact be a cause of constipation itself! An underactive thyroid gland



(hypothyroidism) and patients with diabetes can also develop constipation. Elderly patients who develop long standing constipation will require additional investigations.

**So what can you do?** Well, the treatment of constipation is simple and straightforward. Increase the amount of fibre in your diet. Fibre is present in foods such as rice dishes, brown bread, lentils, beans and green leafy vegetables, to name but a few. If permitted, drink plenty of water every day. Regular exercise stimulates bowel movement, and can treat constipation the natural way. The use of laxatives for long periods of time is not recommended, but natural laxatives such as ispaghulla husk can hold onto water and bulk up the stool, making it easier to pass. Just these few simple measures can provide the relief you need - and even bring a smile to your face!!



## Jackfruit - Inside Scoop on a Miracle Fruit?

Jackfruit is a popular fruit amongst us South Indians, with many of us looking forward to digging in to it's yellow, heavenly sweetness once it is in season. Over the years. there has been much debate about the health benefits of iackfruit. In fact, a recent article in the Guardian Newspaper the jackfruit could in fact become a replacement for staple foods such as wheat and corn in the event of climate change. It is rich in dietary fibre, making it great to treat constipation. It also contains high amounts of vitamins and minerals, particularly vitamin B complex and C.

However, there is a catch. Jackfruit is also rich in sugars, making it a fruit to avoid in diabetes. Research is ongoing in this field, with some studies showing a reduction in blood glucose and lipids in diabetic animal studies. Either way, the benefits are tremendous - so go on, munch on a piece of jackfruit today!

## Sebaceous Cysts

Our skin contains millions of glands that are responsible for maintaining its health. Sweat glands help keep the skin cool, while sebaceous glands keep the skin moist and oily.



However, there are certain occasions when the sebaceous glands can get blocked, resulting in them swelling up and becoming a small lump. This lump contains within it sebum the secretion of the sebaceous glands. In addition, it contains keratin, which makes the secretions thick and cheese-like. This lump is called a sebaceous cyst.

Sebaceous cysts occur as the hair follicle where the sebaceous glands are present get blocked. They can be found on the scalp (see picture), neck and the upper body.

Typically, patients with a sebaceous cyst complain of a painless lump that can sometimes become red and sore. In the middle is a small opening called the 'punctum' (called blackhead) through which a small amount of the substance within it drains out or can be squeezed out. This material is white and stinks!

Diagnosis of the condition is clinical, and patients usually do not need specialised treatment. Rare cases need a CT scan or an ultrasound to identify the contents. The application of a hot towel on the area usually results in rupture of the cyst, and the contents can be easily drained. Sometimes, surgical excision may be needed.

# Anger - Ripping Into The Psychology Behind It.

Let's face it - we all lose our temper from time to time. Be it at the office or at home, anger can make us say things we don't mean and do things we would not do with a clear head.

Did you know that we start getting angry at the earliest stages of our lives? As infants, we live in a chaotic environment where we have no control at all. We tend to 'pull together' this fragmented confusion, creating a personality that hides our weakness. Any threat to this weakness or vulnerability evokes a response that wishes to depict power and total control - this is anger.



Anger begins with a physiological response - an increase in heart rate and increase in blood pressure. This is followed by an immediate psychological response - one of 'wanting revenge' or 'teaching them a lesson'. For that split second, you wish that some form of harm come to the person you are angry with, even if they are the love of your life.

Anger can be managed easily through relaxation therapy (like yoga and breathing exercises) and other stress relief strategies. Always remember - anger can hurt people you love and cause health problems, so make sure you stay calm!

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