

A disease that attacks silently

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By Dr Abdul Waheed Qureishi

HYPERTENSION, called a silent killer, is usually discovered accidentally during routine check up. Fifty per cent of individuals with blood pressure do not even know that they have a problem because in the early stages it has no obvious symptoms. In many cases hypertension is discovered for the first time after an episode of stroke, heart or angina attack. This is precisely the reason why it is necessary to get one's blood pressure checked routinely even if there are no symptoms. This is particularly important if one has a family history of high blood pressure, is overweight and is a male above 45 years.

The heart is a pump that pushes blood into the arteries with a certain pressure to maintain a steady flow of blood, but without excessive pressure on their surface or internal linings. Just as excessive pressure into a tyre damages its lining and surface and ultimately shortens its life, too much pressure in the arteries also damages their linings and shortens their lives. If the heart pumps blood into the circulatory system with a force that is more than necessary for a steady flow of blood, one suffers from high blood pressure or hypertension. Moreover, excessive pressure in the circulatory system forces the heart to work harder to keep the blood flowing against high resistance.

The internal linings of the (coronary) arteries are particularly vulnerable to such damage. If the blood pressure is not brought under control for a

long time, a fatty substance called atheroma is likely to deposit on the damaged part of the coronary arteries causing their narrowing and sometimes complete closure. The result is congestive heart failure due to weakness of heart muscles, angina or even heart attack (myocardial infarction).

It has been estimated that almost 50 million Americans suffer from this disease. Higher the level of blood pressure, higher the incidence of cardiovascular diseases, strokes, heart failures, kidney problems, morbidity and mortality rates.

How to record your blood pressure

Blood pressure is recorded in two readings: an upper reading called systolic pressure and a lower reading called diastolic pressure. If one's systolic blood pressure is 130 and diastolic blood pressure is 80, it is recorded as 130/80. Systolic refers to the peak pressure at the moment the heart is pumping out blood in the arteries on their way to end-organs like heart, brain, kidneys, liver etc. Diastolic blood pressure refers to the pressure when the heart is relaxing after having pumped out to allow the in-flow of blood into the relaxed heart again. The blood pressure recording is carried out with the patient comfortably seated, having the arm at the level of the heart.

The cuff of the blood pressure apparatus should be wide enough to comfortably fit into the upper arm. Small cuffs give higher readings. For taking blood pressure, go on pressing the bulb until the pulse at the elbow, called brachial pulse, disappears. Then deflate the bulb gradually with the stethoscope over the brachial artery. The first audible sound called korotkoff sound marks the systolic pressure and the disappearance of korotkoff sound records diastolic pressure.

In order to get an accurate record of blood pressure it should be carried out

in calm resting conditions several times over several days, on both the arms. Elevated blood pressure in one reading is not enough to pronounce hypertension because several factors like excitement, exertion, psychological factors, fever and many other physical factors may raise blood pressure temporarily, even though one may not be suffering from the disease. Blood pressure is only diagnosed when the patient's average systolic blood pressure is higher than 140 and diastolic more than 90 on many occasions.

Varieties of hypertension

There are two types of hypertension. The blood pressure elevation, which we commonly encounter and which constitutes the vast majority (more than 90 per cent) is called essential hypertension. In essential hypertension no specific cause can be identified. In the other type, which is called secondary hypertension, the cause of elevated blood pressure can be identified. It may be due to kidney disease, hormonal disorder, oral contraceptive pill (in secondary hypertension this is the most common cause).

The higher the value of systolic and diastolic pressures the greater the risk of cardiovascular accidents and stroke. In older people the systolic pressure elevation alone is sufficient to cause these accidents.

Self-medication in case of hypertension can be dangerous. Once detected, the patient should always be under the advice of the physician. The purpose of treatment and lowering of blood pressure is to prevent complications like stroke, renal disease, heart attack, heart failure etc. Such a treatment falls into two categories:

Non-pharmacological measures

This should be tried in patients with mild hypertension and needs to be followed up for at least three months with close monitoring.

Non-pharmacological treatment consists of weight reduction in over-

weight patients, particularly male type of truncal and upper body obesity (loss of weight also improves cholesterol profile), reduction of salt intake, raising of activity level, particularly regular dynamic exercise (those with coronary artery disease or multiple risk factors should undergo exercise stress testing before starting dynamic exercise), reducing alcohol intake, cessation of smoking and dietary control. Dietary control comprises reduction of dietary fats, particularly saturated fats found in beef, mutton, fat-cheese, butter and whole milk.

Mono-unsaturated fats found in olive oil and canola oil are the best. Poly-unsaturated fats found in the vegetable oils and margarine though not as superior are infinitely better than saturated fats and should be preferred to them.

Drug therapy

As previously pointed out this is a disease in which self medication can be harmful and sometimes fatal. From the wide range of drugs available for hypertension the ideal drug or combination of drugs should have the following features:

1. It should be effective singly or in combination for all classes of patients.
2. It should reduce morbidity and mortality.
3. It should not have long-term toxicity or unpleasant side effects.
4. It should be effective as a once-a-day dose.
5. It should lower blood pressure by physiological process.
6. It should not be expensive.

Although no such ideal drug is available, a long range of drugs make it possible to select a suitable drug or a combination of them.

The choice of these drugs falls in the realm of physicians who should select them on the basis of factors like age, race, life style, illness and personal experience. ■

The reality behind the myth

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Hepatitis is indeed a serious and life-threatening ailment

By Syed Mueen-ul-Hassan

According to WHO (World Health Organisation) hepatitis B and C viruses have infected more than 500 million people globally. In Pakistan also, says Dr Anwar A. Khan, Professor and head of gastroenterology department of Shaikh Zaid Hospital, the disease is a major national hazard, which has a potential of crippling the nation.

"In most patients, hepatitis is a sleeping disaster which never makes itself felt until the last and irreversible stage".

Dr Khan told *TNS* that only in a small number of virus-carriers, vague symptoms are seen: "Both hepatitis B and C can lead to liver cirrhosis or liver cancer, thus causing the patients' death. But it does not happen in each and every case as most of the infected people remove the virus from their body."

Dr Anwaar said that though hepatitis is a very serious and threatening ailment, its dangers are too hyped up. He said that most of the people, who come to know that they have hepatitis, are so scared of the disease that their fear becomes a hurdle in the treatment.

Elaborating on the disease, the doctor said that hepatitis B and C both are curable and one should not equate them with AIDS, which is incurable. There is also a vaccine available for preventing hepatitis B while a vaccine for hepatitis C

is in the offing.

"It can be incurable only in some cases specially when the disease is diagnosed very late."

Dr Ghias-un-Nabi Tayyib, associate professor at Jinnah Hospital, also expressed similar views and said that hepatitis is very much unlike aids. Dr Tayyib said that more and more awareness is needed in public so that people could save themselves from hepatitis and in case of infection could get themselves treated.

Interferon injections are being used often in combination with rebavirin for treating hepatitis, said Dr Khan and Dr Tayyib, but this combination therapy cannot be termed an ideal treatment as it causes a lot of side effects. Moreover, both the doctors said, the therapy does not cure all the patients.

Dr Anwar A. Khan said that more research is going on and improved types of interferon (like pegylated interferon) are being tested for their efficacy.

"A very important factor related to hepatitis treatment is that most of the patients are symptomatic and it is very difficult for them to ascertain whether they are improving or not," he said.

Dr Anwar A. Khan said that a test of antibodies is not a standard test for checking whether the treatment is working or not because, once produced, the antibodies may not be normal in blood for years even after hepatitis is cured. "Improvement in symptoms (if any), sustained negative PCR after 6 months and liver biopsy are the yardsticks that can help ascertain whether the

patient has been cured or not."

Dr Anwar A. Khan said that it is fortunate that the genotype 3 of hepatitis C, that is more common in Pakistan, responds well to the interferon therapy: "The average response rate for genotype 3 of hepatitis C to interferon is 70 per cent and that is promising."

Dr Anwar A. Khan and Dr Ghias-un-Nabi Tayyib were both of the opinion that keeping in view the dread of this potentially fatal disease, prevention measures should strictly be followed in terms of strict punitive measures against the reuse of syringes. They said that only virus-free blood be transfused. The doctors said that even in those patients who don't clear hepatitis virus after the administration of the treatment, the chances of cancer and cirrhosis are delayed and they are better off than without treatment.

When asked about the cost of the treatment, Dr Anwar and Dr Tayyib said that they were aware of the unaffordability of the treatment for a common man. "The treatment ranges from Rs 50,000 to more than Rs 100,000 depending on different combinations," said Dr Ghias-un-Nabi adding that the public and the private sector need to do a lot for bringing the cost of the treatment down.

Mr. Karamat Ali, area manager of Roche Pharmaceuticals, told *TNS* that if Pakistan makes progress in the field of biotechnology, there is a chance of reducing the costs of vaccines for hepatitis, and interferon.

All the medical experts that *TNS* contacted stressed the need of following the policy of prevention because it is always better than cure.