

April 27, 1983

# News

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**\*\*New findings aid two types of hypertension patients.**

Editor: May is Hypertension Month, an emphasis sponsored by the U.S. Department of Health and Human Services.

DALLAS--Recent developments in the treatment of high blood pressure point to further individualization of therapy for patients.

Dr. C.V.S. Ram, clinical assistant professor of Internal Medicine at the University of Texas Health Science Center at Dallas, cites recent research findings that affect two classes of hypertension patients. First, there is a new controversy over whether to treat mildly hypertensive patients with drugs. In addition, new drugs have been proven effective in treating those with severe hypertension who do not respond to previous drug therapies.

"There was evidence in the past that patients with mild high blood pressure, that is, 90 to 100 diastolic pressure, should be treated with drugs," says Ram. In the well-known Hypertension Detection and Follow-UP Program, it was found that "systematic treatment of mild hypertension decreased the mortality and morbidity. But now it seems that there were some problems with the study design. Some experts don't accept these findings now."

In the more recent MRFIT study, drug treatment of mild hypertensives with abnormal EKGs caused a higher incidence of morbidity and mortality in this group.

"Our approach here (at the health science center) with mild hypertension is to look at the total cardiovascular risk profile," says Ram. "We individualize the treatment. In a patient with only mild hypertension and no other cardiovascular risk, we try non-drug treatment first -- weight reduction and moderate sodium restriction. It is prudent to follow the patient for a number of months.

"In May 1983 we consider the total cardiovascular risk profile. We treat with non-pharmacological therapy and observe. If the diastolic pressure increases and stays over 100, then we treat with drugs.

"In patients with other disease such as heart failure or renal insufficiency, then perhaps we treat aggressively to prevent further damage."

In severe and complicated forms of hypertension two new drugs have been shown successful.

Ram defines "severe hypertension" as hypertension that does not respond to standard medication or that involves unacceptable side effects or contraindications for the standard drugs. "'Severe' does not mean a certain level of blood pressure. A patient could have a diastolic pressure of only 102 but fail to respond to three or four types of drugs."

Minoxidil is a powerful vasodilator that has been found useful in patients in whom traditional drugs are not successful. The side effects of minoxidil must be carefully considered. The drug causes tachycardia (rapid heart beat), fluid retention and hirsutism (growth of hair). Patients are given at the same time a beta-blocker to prevent tachycardia and a diuretic for the fluid retention. But women especially find the growth of facial hair particularly disturbing.

(over)



"This is a very useful drug, but a careful analysis of the long-term benefit versus the risk must be made," says Ram.

Another new drug useful in severe hypertension is captopril, which has a unique mechanism of action among antihypertensive drugs -- it inhibits the action of a converting enzyme. By its action it reduces the blood pressure both directly and indirectly.

Captopril prevents the production of angiotensin II, a naturally occurring vasoconstrictor in the body. This directly causes a decrease in the blood pressure. Angiotensin II is necessary for the release of a hormone (aldosterone) that causes the body to retain salt. So by interfering in this process, captopril causes an indirect decrease in blood pressure.

With captopril there is a relative lack of side effects. It is more effective in whites and when used in combination with a diurectic. (Most blacks with hypertension have the type that is more responsive to a diuretic alone.)

This drug should not be used in patients with impaired immunity, but "I think it is a safe drug in patients who are otherwise healthy," says Ram.

The brand name for minoxidil is Loniten. Captopril is marketed as Capoten. Both drugs have been approved by the FDA. Ram was involved in clinical testing of the drugs for FDA approval.

In addition to his position at UTHSCD, Ram heads the hypertension clinics at both Parkland Memorial Hospital and St. Paul Hospital.

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