

To get blood pressure under control, combination of medicines may be best

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Millions of Americans take medications for hypertension but do not achieve control of their blood pressure. Single-tablet combinations of drugs may be what it takes to get blood pressure under control, even in people with moderate hypertension, according to results from a new international study involving more than 10,700 people with high blood pressure.

Just six months of treatment was enough to bring the blood pressure of 73 percent of patients into an acceptable range, with an average reading of 132/74 mmHg. That's a near-doubling of the proportion that started the study with their hypertension under control -- despite the fact that nearly all patients came into the study on other medication before switching to one of the two-drug combinations used in the study.

A year later, after 18 months of treatment, patients continued to have good blood pressure control. In fact, more than 80 percent of participants from the United States achieved control, with a mean systolic blood pressure of 129mmHg. This is exceptional news in that only 36 percent of study subjects in the U.S. treated by clinicians achieve a blood pressure of 140/90.

The news was also good among people with diabetes or kidney disease — who need to aim for lower blood pressures than others in order to reduce their risk of heart disease and stroke, but who often have a harder time getting their BP down. People with diabetes in the study achieved a mean systolic BP of 131 mmHg while those with chronic kidney disease

were at 136 mmHg. These groups also saw sustained blood pressure control.

There were few side effects in the study volunteers, despite the fact that doses were increased steadily. Only 1.8 percent of patients had an episode where their blood pressure dropped too low – a potential effect of aggressive BP treatment.

“These data suggest strongly that single tablets containing two drugs will control the vast majority of patients who are taking medication but have not achieved ideal blood pressure. These data may affect the blood pressure control of over 38 million Americans,” says study leader and lead author Ken Jamerson, M.D. a professor of cardiovascular medicine at the University of Michigan Medical School and member of the U-M Cardiovascular Center.

Jamerson presented the 18-month data today at the American Society of Hypertension meeting in Chicago, on behalf of his colleagues involved in the ACCOMPLISH clinical trial. The six-month data are published simultaneously in the journal Blood Pressure.

The goal of the ACCOMPLISH study, begun in 2003 and funded by Novartis, is to compare the impact of two different two-drug combinations on the long-term health of a global sample of people with hypertension. Novartis markets single-pill forms of both two-drug products, but they are also available separately as individual drugs.

The trial randomly assigned patients to one of two drug combinations. Both combinations contained a drug called benazepril, which belongs to a class of medicines known as ACE inhibitors. The other drug in one of the combinations is a diuretic called hydrochlorothiazide; in the other combination pill, it's a drug called amlodipine, one of a class of medicines called calcium channel blockers.

It is too early to say if one of the combinations surpasses the other in bringing blood pressure down or in preventing cardiovascular problems and death.

But because many studies have already shown that reducing blood pressure can reduce the risk of stroke, heart attack, heart failure and other conditions, achieving blood pressure control in large percentages of high-risk people is an accomplishment in itself, says Jamerson.

Currently, blood pressure treatment guidelines call for a single medicine to be tried first in people with Stage 1 hypertension -- those with the top, or systolic, reading over 140 and the bottom, or diastolic, reading over 90, but with readings less than 160 systolic and 100 diastolic.

As many as 60 million Americans have high blood pressure. But because high BP doesn't cause symptoms, most people who have it don't know it. Over time, uncontrolled blood pressure affects the blood vessel walls, encouraging the growth of weak spots called aneurysms and the formation of narrowed and inflamed areas that can lead to clots that can break off and cause heart attacks and strokes.

Only 30 percent of Americans who have high blood pressure, and only 60 percent of those taking medicines for hypertension, currently have their blood pressure under control.

Fortunately, once the condition is diagnosed, doctors have a broad range of medicines to choose from to try to get it under control, including many inexpensive generic medicines.

But studies have found that patients often have trouble taking the multiple medications they need. As a result, many companies have developed combination pills. The ACCOMPLISH data suggest these combination tablets have the potential to improve control rates to over

80 percent.

ACCOMPLISH stands for Avoiding Cardiovascular Events through Combination Therapy in Patients Living with Systolic Hypertension.

Source: University of Michigan Health System

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