糖尿病患者の血圧は低ければよいというわけではない

INVEST：スタディの結果、冠動脈疾患を有する糖尿病患者に対する強力な降圧治療に対し警鐘が鳴らされた

INVEST: Study warns against aggressive blood pressure lowering in diabetic patients with coronary artery disease

心血管疾患を有する糖尿病患者に対する厳密な降圧療法は標準的な降圧療法と比較し、心筋梗塞予防、脳卒中または死亡のリスクをより軽減するということはないようであり、一部の症例では有害な可能性さえあると第59回American College of Cardiology学会で発表された。国際的ベラパミルSR－トランドラプリル（INVEST）スタディは冠動脈疾患（CAD）を有する糖尿病患者6,400人をカルシウム拮抗薬またはβ遮断薬のいずれかとアンジオテンシン変換酵素（ACE）阻害薬および/またはサイアザイド系利尿薬を併用する群に無作為に割り付けた。収縮期血圧が140mmHg以上の者－患者の約3分の1－はコントロール不良と分類した。収縮期血圧が130mmHg未満の患者は厳密コントロールとし、収縮期血圧が中間の者（130mmHg以上140mmHg未満）は標準コントロールとした。コントロール不良群患者は標準治療群と比較し死亡、心筋梗塞、または脳卒中のリスクが50%高かった。しかし、厳密コントロール群患者におけるリスクは標準治療群患者と同等であった。さらに解析を行った結果、収縮期血圧を130mmHg未満にすることにより標準治療と比較し総死亡のリスクが有意に増加することが示された。

Full Text

Tight blood pressure control in patients with diabetes and cardiovascular disease is no more effective in preventing myocardial infarction, stroke or death than standard blood pressure treatment, and in some cases may actually be harmful, according to research presented at the American College of Cardiology's 59th annual scientific session.

The International Verapamil SR-Trandolapril (INVEST) Study showed that in patients with both diabetes and documented coronary artery disease (CAD), keeping systolic blood pressure under 140 mmHg significantly cut cardiovascular risk. However, more intensive treatment to reduce systolic blood pressure to below 130 mmHg did not appear to offer any additional benefit.

"Current guidelines suggest 'lower is better' with regard to blood pressure," said Rhonda M. Cooper-DeHoff, Pharm.D., M.S., an associate professor of pharmacy and medicine at the University of Florida, Gainesville. "Our data suggest that in patients with both diabetes and coronary artery disease, there is a blood pressure threshold below which cardiovascular risk increases."

As many as two out of three adults with diabetes have high blood pressure. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7) recommends blood pressure goals of less than 130/80 mmHg in people with diabetes. INVEST is the first study to critically evaluate the effects of systolic blood pressure lowering in patients with both diabetes and documented CAD.

For the study, INVEST randomly assigned 6,400 patients with diabetes and CAD to blood pressure lowering therapy based either on a calcium-channel blocker or a beta-blocker, plus an angiotensin converting-enzyme (ACE) inhibitor and/or a thiazide diuretic. The target was a blood pressure of less than 130/<85 mm Hg. For the analysis, patients were categorized according to the degree of blood pressure control actually achieved. Patients with a systolic blood pressure of 140 mmHg or higher-almost one third of patients-were classified as Not Controlled. Those with a systolic blood pressure below 130 mmHg were classified as Tight Control and those with a systolic blood pressure in between (130 mmHg or greater, but under 140 mmHg) were classified as Usual Control.

During a follow-up period equivalent to more than 16,893 patient-years, researchers found that patients in the Not Controlled group had nearly a 50 percent higher combined risk of death, myocardial infarction, or stroke when compared with the Usual Care group. However, those in the Tight Control group had a similar risk to those in the Usual Control group. Further analysis showed that lowering systolic blood pressure below 130 mmHg significantly increased the risk of all-cause death when compared to Usual Care, an increase that became apparent about 30 months into the study and persisted for an additional five years of follow up.

When researchers then analyzed blood pressure in 5mmHg increments in the Tight Control group, they discovered that a systolic blood pressure below 115 mmHg was associated with increased mortality.

"Diabetic patients with CAD in whom blood pressure is not controlled have an increased risk for unfavorable cardiovascular outcomes, so the message to lower systolic blood pressure below 140 mmHg is still important," Cooper-DeHoff said. "However, it is not necessary to lower systolic blood pressure below 130 mmHg to reduce that risk. Most importantly, reducing systolic blood pressure below 115 mmHg may be associated with increased mortality."

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