ARBはCVDバイオマーカーによい影響を及ぼす可能性がある (ESC2015 Presentation # 4134)

ATTEMPT-CVD：心血管系バイオマーカーはARB以外の降圧薬に比べテルミサルタンに対し反応が良好である

ATTEMPT-CVD: Cardiovascular biomarkers respond better to telmisartan than non-ARB blood pressure medications

ATTEMPT-CVDトライアルの結果から、アンジオテンシンII受容体拮抗薬（ARB）テルミサルタンはARB以外の降圧薬よりも有益である可能性のあることが示唆された。2015年ESC Congressで発表され同時に*European Journal of Preventive Cardiology*に掲載されたこの結果は、ARBがARB以外の薬剤よりも2つの心血管系疾患（CVD）バイオマーカーに対しより良い影響を与える可能性があることを示した初めてのエビデンスである。日本の168施設の高血圧患者が、テルミサルタン（615人）またはARB以外の降圧薬（613人）を投与される群にランダムに割り付けられ、3年間追跡された。血圧コントロールは同等であったにもかかわらず、36か月後の時点で尿中アルブミン／クレアチニン比（UACR）の低下はテルミサルタン群でARB以外の降圧薬群よりも大であった（ARB群で12.2mg/gCr低下に対し、非ARB群では4.1mg/gCr、p<0.001）。血漿BNP上昇はテルミサルタン群で非ARB群よりも小であった（血漿BNPはARB群で0.5pg/mL上昇に対し、非ARB群では3.8pg/mL上昇、p=0.044）。他のバイオマーカーに関しては、ARB群でアディポネクチンの増加が大であり（p=0.041）CVD健康状態が良好であることが示され、またeGFR低下が大でありこれから腎機能が低いことが示唆された（p<0.001）ことを

Full Text

When it comes to treating high blood pressure, not all anti-hypertensive medications are equal, and results of the ATTEMPT-CVD trial suggest that telmisartan, an angiotensin II receptor blocker (ARB) might have benefits over non-ARB treatment.

The Hot Line results, presented at ESC Congress 2015, and published simultaneously in the European Journal of Preventive Cardiology, are the first evidence that ARBs may have a better impact on two biomarkers of cardiovascular disease (CVD) compared to non-ARBs, said lead investigator Hisao Ogawa, MD, from Kumamoto University, in Kumamoto City, Japan.

However, the trial did not show a significant difference between the treatments in either cardiovascular or renal events.

ATTEMPT-CVD measured the impact of both telmisartan and non-ARBs on urinary albumin creatinine ratio (UACR) and plasma brain natriuretic peptide (BNP).

Patients with hypertension from 168 institutions in Japan were randomized to receive telmisartan (n=615) or a non-ARB antihypertensive drug (n=613) and followed for three years.

The primary efficacy endpoints were changes from baseline in UACR and plasma BNP levels. Elevations in either of these biomarkers are considered risk factors for CVD. Secondary endpoints were changes in other biomarkers, including serum high-sensitivity C-reactive protein (hsCRP) levels, urinary 8-hydroxy-deoxy-guanosine (8-OHdG), serum adiponectin, estimated glomerular filtration rate (eGFR), and high-molecular weight adiponectin levels.

Another secondary endpoint was time until occurrence of a composite of cardiovascular events consisting of cerebral events, coronary events, cardiac events, aortic/peripheral arterial events, complication of diabetes, and aggravation of renal function.

The study found that, despite similar blood pressure control in both arms, patients treated with the ARB had a smaller increase in plasma BNP and a greater decrease in UACR than non-ARB treated patients.

By 36 months, UACR had decreased by12.2 mg/gCr in the ARB group compared to a decrease of 4.1 mg/gCr in the non-ARB group (P < 0.001).

Similarly, plasma BNP had increased by 0.5 pg/ml in the ARB group and by 3.8 pg/ml in the non-ARB group (P = 0.044).

Fewer cardiovascular events occurred in the ARB group, but the difference was not statistically significant (hazard ratio 0.71, P = 0.14).

Other biomarkers were not different between the two groups except for serum adiponectin, which showed a larger increase (P = 0.041), indicating better CVD health, and eGFR which showed a larger decrease (P < 0.001) indicating poorer renal function in the ARB group compared to the non-ARB group.

"It is well known that a slight but significant decrease in eGFR is not associated with poor outcome and may not be clinically relevant," noted Dr. Ogawa. In fact, the study showed that baseline levels of UACR and plasma BNP levels were associated with cardiovascular risk, but adiponectin and eGFR levels were not.

"Further study is needed to determine the significance of follow-up of BNP and UACR for cardiovascular and renal risk in hypertensive patients," he concluded.
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