ピオグリタゾンとグリメピリドの比較

PERISCOPEトライアルの結果、ピオグリタゾン治療により冠動脈プラークは進行しないが、グリメピリド治療では時間とともに有意に進行することが示された

PERISCOPE trial finds no progression of coronary plaque with pioglitazone therapy but significant progression over time with glimepiride

ピオグリタゾンは2型糖尿病患者の冠動脈硬化の進行を抑制することのできる第一の抗糖尿病薬のようである、とのLate-Breaking Clinical Trialの結果がAmerican College of Cardiology学会で発表された。PERISCOPEトライアルでは543人の患者をピオグリタゾン（15～45mg）またはグリメピリド（1～4mg）を18ヵ月間投与する群に無作為に割り付け、忍容性があれば可能な限り最大用量を使用した。組み入れ時および治療18ヵ月後に血管内超音波検査を施行した。その結果、プラーク量はピオグリタゾン群で軽度減少した（マイナス0.16%）がグリメピリド群では有意な進行が認められた（プラス0.73%）。ピオグリタゾンはまた、高密度リポプロテインコレステロール、中性脂肪、およびC反応性蛋白などの生化学マーカーや血圧の改善においても結果が良好であった。グリメピリドに割り付けられた患者の方が低血糖または狭心症の発現を多く認め、ピオグリタゾンに割り付けられた患者の方が浮腫や骨折の発現を多く認めた。

Full Text

Pioglitazone appears to be the first diabetes therapy able to reduce progression of coronary atherosclerosis in patients with type 2 diabetes, according to a late-breaking clinical trial presented at the meeting of the American College of Cardiology.

The PERISCOPE trial (Pioglitazone Effect on Regression of Intravascular Sonographic Coronary Obstruction Prospective Evaluation) compared two approaches to management of diabetes, randomizing 543 patients for 18 months to the thiazolidinedione pioglitazone, which reduces blood glucose level by increasing insulin sensitivity or the sulfonylurea glimepiride, which lowers blood glucose by stimulating insulin release by the pancreas).

The prospective, randomized, multicenter, double-blind trial treated patients with coronary disease and type 2 diabetes for 18 months at 97 academic and community hospitals in North and South America. Patients underwent intravascular ultrasonography to measure the amount of plaque volume at entry. Patients received either glimepiride, 1-to-4 mg, or pioglitazone, 15-to-45 mg, titrated to maximum dosage, if tolerated. After 18 months, a second ultrasound examination was performed to determine the amount of change in coronary plaque volume. The primary endpoint was the rate of progression of coronary plaque as measured by the ultrasound procedure.

The principal finding was an absence of progression of coronary plaque with pioglitazone (negative 0.16 percent) compared with highly significant progression with glimepiride (positive 0.73 percent) as assessed with intravascular ultrasound.

There were also major differences between treatments in biochemical effects including marked differences in levels of high-density lipoprotein cholesterol, triglycerides and C-reactive protein. Other important endpoints included changes in glycohemoglobin levels, insulin levels, other lipid parameters and blood pressure - all more favorable for patients treated with pioglitazone.

There were adverse effects in both treatment groups: More patients assigned to glimepiride experienced episodes of low blood sugar or angina and more patients assigned to pioglitazone experienced edema and fractures.

"Atherosclerosis can be particularly aggressive in patients with diabetes, which is currently increasing at an alarming rate in the developed and developing world," said Steven Nissen, MD, Chairman, Department of Cardiovascular Medicine, Cleveland Clinic and lead author. "By defining the optimal strategy for managing coronary heart disease in this patient population, this study has major implications for how we will treat diabetics with coronary disease in the future."

ACC2008 特集