SYNTAXの結果から治療方針を決定するのに役立つ情報が得られる

SYNTAX解析の結果、多くの患者においてPCIに軍配が上がったが、QOLおよび医療経済上、CABGとPCIのバランスには疑問の余地がある

SYNTAX analysis favors PCI in many patients, but quality of life and economics question CABG-PCI balance

重症の冠動脈疾患患者においてはバイパス手術の方がステント留置術よりも臨床上の予後に関して有利な結果であったが、冠動脈が解剖学的に最も複雑な患者においてはバイパス術を選択するのが最良な一方で、QOLや経済的なことを考慮すると真っ直ぐな病変や中等度の複雑性病変では経皮的冠動脈インターベンション（PCI）の方が良いとのレイトブレイキングクリニカルトライアルの結果が、2009年第58回American College of Cardiology学会i2サミットで発表された。Synergy between PCI with Taxus and Cardiac Surgery（SYNTAX）トライアルの1年間の結果から、死亡率、心筋梗塞または脳卒中発症率はPCIとCABG群で同等であったが、再血行再建施行例数に関してはPCIの方が有意に多いことが示された。ステントもCABGも全体のQOLは向上させたが、胸痛の軽減に関してはCABGの方がやや良好であった。費用対効果解析の結果、疾患の複雑性が費用対効果に影響することが示された。真っ直ぐな3枝病変または左主幹冠動脈病変および中等度の複雑性病変の患者においては、質で補正した余命がPCIの方がCABGよりも良好であり医療費も安かった。しかし、複雑性3枝病変の患者においては質で補正した余命がCABGの方が良好であり、全体的なコストはPCIとCABGとでほぼ同等であった。

Full Text

A new report from the Synergy between PCI with Taxus and Cardiac Surgery (SYNTAX) trial shows that the advantages of bypass surgery are less obvious once quality of life and economic data are included in the analysis. Instead, the complexity of coronary artery disease becomes a major factor in determining whether stenting or surgery is the preferred treatment according to research presented during the i2 Summit at the American College of Cardiology's 58th annual scientific session.

A new report from the Synergy between PCI with Taxus and Cardiac Surgery (SYNTAX) trial shows that the advantages of bypass surgery are less obvious once quality of life and economic data are included in the analysis. Instead, the complexity of coronary artery disease becomes a major factor in determining whether stenting or surgery is the preferred treatment.

"Clinicians, patients, guideline issuers and payers will find this information helpful in making clinical decisions, as well as in setting treatment priorities," said David J. Cohen, M.D., MSc, director of cardiovascular research at Saint-Luke's Mid America Heart Institute and a professor of medicine at the University of Missouri. "From a patient's perspective, quality of life differences are very important to consider. Similarly, given current constraints within the healthcare system, evidence that one approach is less costly could also be incorporated into treatment guidelines."

The main SYNTAX trial enrolled 1,800 patients with a build-up of cholesterol plaque in either three coronary arteries or the critically important left main coronary artery, randomly assigning 897 to coronary artery bypass grafting (CABG) and 903 to PCI with drug-coated stents. At the one-year mark, rates of death, myocardial infarction or stroke were similar for the PCI and CABG groups, while the number of repeat heart procedures was significantly higher in the PCI group.

The new study set out to determine whether there were differences in the quality of life with the two procedures. Researchers measured not only overall quality of life but also the impact of a patient's heart disease on symptoms, physical limitations, pain, vitality and other factors. In addition, they collected economic data throughout the study on cardiovascular procedures, hospitalizations, outpatient testing, physician visits and medications.

They found that both stenting and CABG improved the overall quality of life over one year of follow-up, although angina relief was slightly better with CABG. Under the U.S. healthcare system, surgery was initially about $6,000 (or about 25 percent) more costly than PCI, reflecting higher hospital costs and much higher physician fees. However, PCI added approximately $2,500 in follow-up costs over the next year, mostly because of additional procedures and the need for long-term anticoagulants.

A formal cost-effectiveness analysis found that for the population as a whole, the clinical benefits of CABG did not justify its higher cost at one year. However, the complexity of coronary disease - determined by such factors as where the plaque was located, the number of lesions to treat, the length of lesions and whether they were calcified or layered with fragile blood clots - had a substantial influence on cost-effectiveness. In straightforward three-vessel or left main coronary disease, PCI led to better quality-adjusted life expectancy than CABG and lower healthcare costs. Findings were similar for patients with disease of intermediate complexity. However, for patients with complex three-vessel disease, quality-adjusted life expectancy was better with CABG, while overall costs at one year were nearly identical for the two procedures.

"The most important message is that there is no single answer. The relative cost-effectiveness of PCI and CABG for left main and three-vessel disease depends strongly on the complexity of underlying coronary disease," Cohen said. "It is also important to note that our analysis applies only to the U.S. healthcare system. Given differences in treatment patterns and resource costs, the specific balance of costs and effectiveness may be very different in other countries."

Five-year follow-up is planned for all patients in the SYNTAX trial.

ACC2009特集