ステント血栓症に関するさらなる情報

OPTIMISTトライアルの結果、ステント血栓症に対する緊急経皮的冠動脈形成術の成績は期待に反する結果であったことが示された

OPTIMIST trial shows that emergency percutaneous coronary intervention for stent thrombosis is associated with disappointing outcomes

ステント血栓症に対する緊急経皮的冠動脈形成術の成績は、熟練した施設においてもなお成績が不良のようである、とESCで発表された。2年間にわたりOPTIMISTトライアルでは110人の患者を組み入れたが、患者は急性心筋梗塞に対し緊急経皮的冠動脈形成術を施行された者の3.6%を占め、一連のこれらの患者を集めた中では今までで最も多い数である。6ヵ月間の追跡調査による予後解析の結果は、死亡率が17%、主要な冠動脈または脳血管イベント発症率が29%と、期待に反する結果であった。死亡率は、ステント血栓症がステント植え込み1年後に発現した場合、インターベンションを試みた結果が最善ではなかった場合、および施術中にステントを追加で植え込んだ場合に、有意に高かった。塞栓予防デバイスを用いて血栓除去術を施行された心原性ショックのない患者では最大の冠動脈血流回復率が5倍高かった。

Full Text

Emergency percutaneous coronary intervention for stent thrombosis appears to be associated with disappointing outcomes, according to a presentation at the annual meeting of the European Society of Cardiology.

The OPTIMIST (Outcome of PCI for stent-ThrombosIs MultIcentre Study) trial was a non-sponsored, independent, large-scale, multi-center study conducted by 11 hospitals located in around Rome, Italy. During a period of 2 years (2005-2006) all patients who were admitted to participating hospitals with stent thrombosis and treated by percutaneous coronary intervention were enrolled.

Clinical and procedural data was recorded on a detailed questionnaire and clinical outcome up to 6 month after intervention was assessed by ambulatory visit or phone contact. Moreover, procedure efficacy to reestablish optimal coronary blood flow was assessed by performing detailed analyses in an independent core laboratory.

During the study, 110 patients were recruited, constituting the largest series of patients with stent thrombosis collected to date. A first original observation arising from the study was that stent thrombosis, even if it is a rare event, accounted for 3.6 percent of emergency procedures performed in patients with acute myocardial infarction. These data reinforce the perception that stent thrombosis has more than a negligible impact on the contemporary health system and further investigations on its causes and management are merited

The data collected in the OPTIMIST study did not allow for clarification of whether risk of thrombosis is higher after drug-eluting or bare metal stent implantation. However, the data support the hypothesis that stent thrombosis may have different mechanisms of occurrence in different types of stents.

Indeed drug-eluting stent thrombosis, compared with thrombosis in bare metal stents, happened more often after 30 days of implantation or after 15 days post-withdrawal of antiplatelet drug therapy. On the other hand, once stent thrombosis has occurred, clinical manifestations, procedural and clinical outcomes did not appear to be influenced by the type of stent.

Clinical outcome during the six-month follow-up, despite good utilization of all of the best pharmacological and technical resources, was a disappointing 17 percent mortality rate and 29 percent rate of major adverse coronary or cerebral events (death or myocardial infarction or stroke or necessity of a new interventional procedure). These results show that stent thrombosis is not a benign disease and emergency interventions in this setting are still associated with unsatisfactory outcome.

As the individuation of factors associated with worse case outcome may be useful in clinical practice, a series of analyses of independent predictors of bad outcome was performed in OPTIMIST. Such analyses showed that mortality was significantly higher when stent thrombosis occurred one year after stent implantation (i.e. "very late" thrombosis), when the attempted intervention result was not optimal, and when an additional stent was implanted during the procedure.

The first point suggests that clinical surveillance after successful intervention should not be reduced after one year and that the possible value of long-term anti-thrombotic drug administration should be investigated. The other two factors may together provide some interesting suggestions to the interventional cardiologists who perform emergency procedures in patients with stent thrombosis. Indeed, it seems they should aim to reestablish optimal coronary blood flow and not to eliminate any residual coronary vessel narrowing by further stent implantations.

The OPTIMIST study also evaluated the efficacy of novel techniques in the high-risk scenario of stent thrombosis. Previous studies have suggested that thrombectomy using new, specifically-designed devices may facilitate restoration of coronary blood flow in thrombotic lesions by reducing distal embolization of thrombotic debris. In the OPTIMIST study, 1 in every 4 patients was treated using thrombectomy devices as a first strategy. Despite the fact that patients treated by thrombectomy were sicker than the others, no excess adverse clinical events were observed, supporting the safety of this novel approach.

Patients without shock treated by thrombectomy had a five-fold improved rate of optimal coronary flow restoration. This suggests that the role of distal embolization and its prevention may be important only before advanced heart damage has been established.

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News

[News Flash 01]
急性心不全の管理に関する知見

[News Flash 02]
遅れて施行する血管形成術の価値

[News Flash 03]
糖尿病患者における心血管リスクの管理

[News Flash 04]
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[News Flash 05]
直接的なレニン阻害と心不全

[News Flash 06]
冠動脈造影前の抗凝固療法

[News Flash 07]
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[News Flash 08]
経皮的僧帽弁修復術の可能性

[News Flash 09]
薬剤溶出ステントと急性冠症候群

[News Flash 10]
心室性不整脈の軽減

[News Flash 11]
ステント血栓症に関するさらなる情報

[News Flash 12]
薬剤溶出ステントに関する性特異的な情報

[News Flash 13]
遅発性ステント血栓症に関する死体解剖から得られた情報