

Nitinol stent performs better than balloon angioplasty alone in treating lesions of the popliteal artery

October 24 2012

A study found that a nitinol stent performed better than balloon angioplasty alone in treating blockages of the popliteal artery, which runs through the leg behind the knee. Results of the ETAP trial were presented today at the 24th annual Transcatheter Cardiovascular Therapeutics (TCT) scientific symposium. Sponsored by the Cardiovascular Research Foundation (CRF), TCT is the world's premier educational meeting specializing in interventional cardiovascular medicine.

Due to its location behind the mobile knee joint, it is controversial whether to implant a stent in the popliteal artery for all cases or only for cases in which balloon angioplasty alone results in a suboptimal result. In this study, investigators conducted a prospective, randomized, multi-center trial comparing primary nitinol stent placement to angioplasty alone in patients who had a single, de-novo obstructive lesion in the popliteal artery.

A total of 246 patients from nine centers in Europe were included in this trial. Patients were randomly assigned to either a self-expanding nitinol stent (N=119) or a standard balloon angioplasty procedure (N=127). The primary study endpoint was one-year duplex ultrasound-derived primary patency, defined as freedom from target lesion [restenosis](#) without further intervention. Secondary endpoints included target lesion revascularization, secondary patency, changes in Rutherford categories

from baseline, and limb salvage rates. X-rays were taken at one year and examined for stent fractures.

The mean lesion length for the PTA group was 43.2 mm compared to 41.3 mm for the stent group. Six patients (2.4%) died during the follow up period. The one-year primary patency rate was significantly higher in the nitinol-stent group (67.4 percent) than in the balloon angioplasty group (44.9 percent, P

Citation: Nitinol stent performs better than balloon angioplasty alone in treating lesions of the popliteal artery (2012, October 24) retrieved 19 April 2024 from <https://medicalxpress.com/news/2012-10-nitinol-stent-balloon-angioplasty-lesions.html>

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