Analysis of Outcomes of In.Pact Drug Coated Balloon Use for Peripheral Vascular Disease Treatment

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Introduction
Clinical studies suggested that paclitaxel-coated balloons carry anti-proliferative properties to keep the lumen vessel open without stent requirement.

We did a meta-analysis comparing the use of Medtronic In.Pact drug coated balloon (DCB) to the standard uncoated balloon for the treatment of symptomatic peripheral vascular disease (PAD).

Methods
We performed a systematic search through Pub Med and Cochrane database using all RCT’s that compared Medtronic In.Pact DCB to uncoated balloon for the treatment of symptomatic PAD.

We stratified our analysis in femoropopliteal disease and infra-popliteal disease.

Primary endpoint included symptom driven target lesion revascularization (SD-TLR) and binary re-stenosis.

Secondary endpoints included death and amputations.

We used Fixed or Random Effect analysis using the Cochrane Handbook of Systematic Reviews and RevMan 5.2 for statistic analysis.

Conclusions
Our analysis suggests that In.Pact DCBs are beneficial and efficacious in the treatment of symptomatic PAD.

There was no proven benefit in the reduction of amputation or mortality rates.

An in-depth analysis is necessary to determine the origin of the discrepancies between the femoropopliteal and intra-popliteal analysis.

Disclosures
All the authors have no disclosure.

Results
Five RCT’s provided a total of 987 patients (DCB: 603 patients; PTA: 384 patients).

Overall, there was a significant lower SD-TLR in the DCB compared to PTA (8.6% vs. 25%, p=0.002).

Sub-analysis demonstrated significant less TLR in the femoropopliteal analysis only.

There was also a trend towards less binary re-stenosis (p=0.06).

Femoropopliteal group sub-analysis had significant less binary re-stenosis (p<0.001).

There was no difference in amputation-free survival or mortality rates between both groups.