All Drug Eluting Stents Are Not The Same For The Treatment Of Infrapopliteal Arteries
Results From An Updated Meta-Analysis Of RCTs
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Disclosure
Speaker name: Ramon L. Varcoe

CRITICAL LIMB ISCHAEMIA
- Population Age, Diabetes and Obesity rates are increasing\(^1^,2^,3\)
- CLI rates are as well\(^4\)
- Lower limb amputation cost approximately $USD 509,275\(^5\) ($USD 4.3b, annually\(^6\)), but are reduced by revascularisation
- Endovascular Therapy has become accepted first line therapy but may be limited by durability\(^7\)

CONVENTIONAL EVT
- PTA
- BMS
- DCB

DES
- Scaffolding
- Anti-proliferative Drug

Systematic Review of Infrapopliteal Drug-Eluting Stents: A Meta-Analysis of Randomized Controlled Trials
- 3 RCTs
PAST SYSTEMATIC REVIEWS

Drug-Eluting Stents for Revascularization of Infrapopliteal Arteries
Standard Meta analysis of Randomized Trials
Mahananto Hand, MD, Robert Cowan, MD, Charles Stern, MD, MD, MS, 
Jeong Hoon Kang, MD, MS, Jo, MD, Mi, MD, MS, Young Rock, MD, MS
Affiliation: Department of General Surgery, Seoul St.

2015
5 RCTs

AIM

• To perform an updated systematic review of DES vs standard endovascular techniques in the infrapopliteal circulation
• Compare the relative effectiveness of each anti-proliferative drug coating

ENDPOINTS

• PRIMARY: Primary Patency
• SECONDARY:
  – Freedom from TLR
  – Major Amputation
  – Sustained Improvement in Rutherford Class
  – Overall Survival
• A Priori SUBGROUP Analysis:
  – Sponsorship Source
  – Anti-proliferative drug coating

SCREENING PRISMA


7 RANDOMISED CONTROLLED STUDIES

RISK OF BIAS

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z

11/15/2017
**PRIMARY PATENCY**

OR 0.29, 95% CI 0.20 to 0.42; $I^2 = 0\%$, $P<0.00001$; NNT 4

**FREEDOM FROM TLR**

OR 0.46, 95% CI 0.27 to 0.77, $I^2 = 38\%$, $P=0.003$, NNT 8

**SUSTAINED IMPROVEMENT IN RUTHERFORD CLASS**

OR 0.62, 95% CI 0.39 to 0.99; $I^2 = 65\%$, $P=0.05$

**MAJOR AMPUTATION**

OR 0.56, 95% CI 0.31-1.00; $I^2 = 0\%$, $P=0.05$

**OVERALL SURVIVAL**

**SUBGROUP ANALYSIS**

(Primary Patency vs SPONSORSHIP SOURCE)
CONCLUSION

- Drug Eluting Stents achieved clearly superior Primary Patency & Freedom from TLR rates compared to conventional EVT
- There was also a difference in Sustained Improvement in Rutherford Class and fewer amputations seen with DES
- There was greater benefit seen with Sirolimus and its analogues compared to Paclitaxel

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