New Device trends

Trends seen from the perspective of a EU Physician

Dr. Marc Bosiers

LINC 2017, Leipzig
Conflict of interest

☒ have the following potential conflicts of interest to report:
  ☐ Consulting
  ☐ Employment in industry
  ☐ Stockholder of a healthcare company
  ☐ Owner of a healthcare company
  ☐ Other(s)

☑ I do not have any potential conflict of interest
Device trends in the past...

- Balloon expandable Palmaz stent
- Self-expandable Wall/Strecker stent
- Self-expandable nitinol stents
- Self-expandable nitinol stent - Modern generation

Keywords:
- CRUSH
- DISSECTIONS
- RECOIL
- POBA
- STIFF
- FRACTURES

FLEXIBILITY
- CHRONIC OUTWARD FORCE
- RADIAL RESISTIVE FORCE
- CRUSH RESISTANCY
Device trends in the past...

- Procedural success: 85%
- Patency Rate: 65%
- Imaging technology: Increasing over time

Timeline:
- 1990
- 2000
- 2007
- 2016

TASC I

TASC II
Device trends in the past... Drug-Eluting era

- Drug Eluting stents
- Drug Eluting scaffolds
- ISRO
- Drug Coated balloons
- Best of 2 worlds?
- Chronic Outward force
- Radial resistive force
- Leave nothing behind
- DISSECTIONS
- RECOIL
Device trends in the past... Drug-Eluting era

- Procedural success: 95%
- Patency Rates: 80%

Timeline:
- TASC I: 1990
- TASC II: 2007
- 2016

Imaging technology
How to close this small last gap between procedural success & patency rates? Improve our current devices?

DCB  POBA  DES  Bioresorbable Scaffolds
Covered Stents  Atherectomy  VMI
Bypass surgery
How to close this small last gap between procedural success & patency rates? **Change our therapeutic strategy?**

- ?? First DCB... then BMS ??
- ?? First BMS... then DCB ??
- ?? Bail-out stenting ??
- ?? Spot stenting ??
- ?? Primary stenting ??
- ?? Full lesion coverage??
How to close this small last gap between procedural success & patency rates? New & better devices?
We can’t see the wood for the trees in the device world
We don’t speak about money & reimbursements

What is the prevalence of endovascular SFA therapy as compared to surgical?

The prevalence of endovascular SFA therapy in Germany is steadily increasing. Malayan et al. analyzed all in-hospital patients with a diagnosis of peripheral artery disease based on the nationwide German diagnostic-related group system comparing the years 2005 and 2009, and found that use of endovascular therapy increased by 46%. In contrast, open surgical revascularization procedures have decreased for two reasons: (1) the number of vascular surgeons who are performing endovascular therapy for SFA disease is rapidly increasing, and (2) more patients are looking for vascular centers that specialize in endovascular options.

How would you describe device availability in your country, both in types of devices and different vendors within each class?

In Germany, all types of devices are commercially available, and the list includes balloon catheters, stents, and filters. Vascular surgery departments are well-equipped with state-of-the-art technology, and implantation procedures are performed using modern techniques.
We don’t speak about money & reimbursement

Preferred strategy from a third-party healthcare payer perspective

Preferred strategy from a Physician/facility provider perspective
We don’t listen correctly to confusing trials
Why are there so many controversies and uncertainties?

We can’t see the wood for the trees in the device world

We don’t listen correctly to confusing trials

We don’t speak about money & reimbursements
Conclusion

If we want to create clarification in endovascular strategies:

• We need **to look** to all available devices and their values/down-sides

• We need **to listen** to rigorous trial analysis: re-aligning our clinical trial set-up, endpoints, assessments,…. & adding head-to-head comparison trials

• We need **to speak** with all involved parties about cost-effectiveness and health-economics
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