How to cross the below-the-ankle occlusions

Clinical Implications, Current status and Future Challenge

Tatsuya Nakama MD.
Miyazaki Medical Association Hospital,
Cardiovascular Center
Miyazaki, Japan
I have the following potential conflicts of interest to report:

- **Consulting**: Boston Scientific Japan, Century Medical Inc.
- Employment in industry: None
- Stockholder of a healthcare company: None
- Owner of a healthcare company: None
- **Other(s): Honoraria received from**
  Abbot Vascular, Asahi Intecc., Boston Scientific, COOK, Cordis, Cardinal Health, Goodman, KANEKA, Lifeline, Medikit, Medtronic, Orbus Neichi, Terumo,
problems of BTA intervention
Why?

How?
Why?

Clinical *implication* of BTA intervention
Clinical implications of BTA interventions


Improvement of Rate of wound healing

Below-the-ankle interventions

Improvement of Rate of wound healing
How?

**technical** problem

**How to** guidewire cross

**How to** open (expand) the lesion
How to cross GW

- Understand the complex BTA anatomy
  Figure of 8 (eight) shape

- Set up the Bi-directional approach
  Distal site puncture (DP)
  Trans-collateral approach (TCA)
There is No Distal puncture site!!

Distal puncture is impossible!
Trans-collateral approach is an important technique for BTA CTO revascularization.
Representative case
After the GW crossing...

Followed devices sometimes

DO NOT pass the lesion
Several Devices & techniques

- Extension guide
- Low-profiled balloon
- Crosser
- Front-cut debulking
- NOT AVAILABLE
- BAD FORM
- OFF label
- PIERCE
All devices **DO NOT** work well
We sometimes faced "untreatable" BTK/BTA disease
What should we do after Failed recanalization?
Control angiogram
Clinical course (immediately after EVT)
Follow-up angiogram (2 weeks after procedure)
Meaning of **BTA revascularization**

- **BTK**
- **BTA disease**
- **BTA Revascularization**

Improvement of pedal perfusion
DVA  Make a new pedal flow!!

BTK

BTA disease

Failed revascularization

Pedal perfusion may improve

DVA: Deep venous arterialization
<7 patients with no-option CLI>
No death, AK amputations and re-do within 30-days

Technical success rate: 100%
Wound healing was achieved 4/7@6M, 5/7@12M

Problems of percutaneous DVA

- Social problems
  Institutional Ethics Committee (IEC) approval
  Reinvestment of devices

- Clinical problems
  TMA is required
  Foot edema after revascularization
Re-built Pedal circulation

Make New Pedal circulation
Summary

Why?
- Achievement of rate of complete healing

How?
- GW cross: TCA is useful
- Device cross: sometimes impossible
- DVA (make a new pedal flow) is final option
Conclusion

CLI management is always challenging

We have to continue effort
To make a future options & evidences
for “Untreatable” patients
How to cross the below-the-ankle occlusions

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