BTA intervention: overview and video live

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I have the following potential conflicts of interest to report:

- Consulting: Abbot Vascular
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

- I do not have any potential conflict of interest
The agenda of presentation

1. Concept of BTA intervention

2. Brief review of CLI management and BTA intervention

3. Video-live of BTA intervention
The agenda of presentation

1. Concept of BTA intervention
2. Brief review of CLI management
3. Video-live of BTA intervention
Why BTA intervention needed?
Concept of BTA intervention

Improvement of complete wound healing rate
The agenda of presentation

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Prognosis of patients with CLI is unfavorable

Arterial revascularization is essential
Surgical bypass = standard revascularization strategy

Rarely qualify as surgical candidate

- Frailty
- Concomitant diseases
- Advanced age
Limbs salvage rate in latest trials

EVT trials

<table>
<thead>
<tr>
<th></th>
<th>Limbs salvage</th>
<th>OPG:84%</th>
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<tbody>
<tr>
<td>Iida</td>
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<td>Nakama</td>
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<td>Kawarada</td>
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<td>Kobayashi</td>
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<td>Azuma (BSX)</td>
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Kobayashi et al. CCI 00: 000-000 (2015)
Azuma et al. JVS 00: 000-000 (2014)
EVT for CLI is **NOT** perfect!!
Incomplete wound healing

IMPORTANT clinical problem
Discrepancy of two outcomes

Limbs salvage rate: 86%

Wound healing rate: 66%

Discrepancy
LS & WH rate in latest clinical trials

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<thead>
<tr>
<th></th>
<th>Limbs salvage</th>
<th>Wound healing</th>
<th>Discrepancy</th>
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<tbody>
<tr>
<td>Iida</td>
<td>21%</td>
<td>20%</td>
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<tr>
<td>Nakama</td>
<td>18%</td>
<td>19%</td>
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<td>Kawarada</td>
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<td>19%</td>
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EVT

BSX

Kobayashi et al, CCI 00: 000-000 (2015)
Azuma et al, JVS 00: 000-000 (2014)
Preventing the limbs loss

It’s only a first step
Complete wound healing

Next goal after the achievement of successful prevention of major amputation
For achievement of complete wound healing

Are there any solutions?
Predictors of delayed wound healing

Non-ambulatory, low Alb, R6 without heal, Infection, Angiosome ID, Poor BTA

Shiraki et al, EJEVS 00:000-000 (2015)

DM, Infection, Poor BTA

Multidisciplinary approach

Limbs salvage

Vascular surgeon
Cardiovascular surgeon

Plastic surgeon

Orthopedic surgeon
Major amputation

dermatologist
Skin care, Screening

Co-medical
Foot care Screening

Home doctor
General Physician

Cardiologist

As a part of multidisciplinary approach

What could we do, should we do?
Poor Below-the-ankle run-off = BTA diseases

Treatment for BTA occlusion

It might improve
the wound healing rate
Exceptional wound healing rate

Time to wound-healing

PAA(+): 86.0 ± 18.7 days (IQR: 63 - 155)
PAA(-): 152.0 ± 60.2 days (IQR: 80 - 365)

P=0.05

Representative case
(R6 with infection)
Control angiogram
BTA revascularization
Pedal artery angioplasty
Angiogram after BTA revascularization
Debridement after EVT
Retrospective analysis for the clinical impact of pedal artery revascularization versus non-revascularization strategy for patients with critical limb ischemia
Multicenter RENDEZVOUS registry

257 patients (257 limbs) were enrolled

140 limbs vs. 117 limbs

underwent EVT with BTA revascularization

underwent EVT without BTA revascularization

51% Non-ambulatory, 74% DM,
62% ESRD on HD, 22% Rutherford 6

Will be presented in JCS 2016
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Case overview

- 60s male
- Diabetes (HbA1c: 6.2)
- ESRD on HD
- Previous history of MI
- SPP Dorsal 22mmHg
  Plantar 14mmHg
Control angiogram

Tibioperoneal trunk to PTA and peroneal occlusion

Proximal lateral plantar & Dorsal artery occlusion
live: BTA intervention
Sufficient Wound Blush
Clinical course
1. BTA intervention might improve the wound healing rate.

2. Accumulation of evidence (when and who?)
Development of dedicated devices & novel techniques were required for standardization of BTA intervention.
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