Limb salvage for critical limb ischemia due to hopeless complex diseases; multiple vascular and bypass occlusion

Tokeidai Memorial Hospital
◆ T. Haraguchi, MD.
S. Kitani, M. Tan, Y. Igarashi, K. Urasawa

LINC2018 02.Feb.2018
Disclosure

Speaker name: Takuya Haraguchi, MD.

I 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
70’s y.o. male
Diabetes, Smoker

1. **Leriche syndrome**  **RuIII**
   - Bilateral axillo-femoral bypass

2. **Axillo-femoral bypass**
   - & lt.SFA occlusion  **RuV**
   - Y-graft & lt.femoro-popliteal bypass

3. **All occlusion**
   - & Bil,subclavian-Axillary artery occlusion
   - Rutherford rt.III, lt.V
   - ABI unmeasurable  SPP d10, p11mmHg
70’s y.o. male
*Diabetes, Smoker*

① *Leriche syndrome*  *RuIII*
- Bilateral axillo-femoral bypass

② *Axillo-femoral bypass*
- & *lt.SFA occlusion*  *RuV*
  - Y-graft & lt.femoro-popliteal bypass

③ *All occlusion*
- & *Bil,subclavian-Axillary artery occlusion*
  - Rutherford *rt.III, lt.V*
  - ABI unmeasurable   SPP d10, p11mmHg
70’s y.o. male
Diabetes, Smoker

① Leriche syndrome  RuⅢ
- Bilateral axillo-femoral bypass

② Axillo-femoral bypass
- & lt.SFA occlusion  RuⅤ
- Y-graft & lt.femoro-popliteal bypass

③ All occlusion
- & Bil.subclavian-Axillary artery occlusion
  - Rutherford rt.Ⅲ, lt.Ⅴ
  - ABI unmeasurable  SPP d10, p11mmHg
Subclavian-axillary
Y-graft anastomosis site
Lesion summary

① Bil.subclavian-axillary artery occlusion

② Leriche & lt.CFA-SFA occlusion

③ Bil.axillo-femoral bypass occlusion

④ Y-graft & lt.femo-pop bypass occlusion

⑤ Abdominal aorta clamp
Problem

◆ Not revascularize native artery
  ✔ Abdominal aorta clamp

◆ Revascularize bypass graft only
  ✔ approach sites ?
  ✔ too many thromboses ?
  ✔ bi-directional approach ?
  ✔ Ballooning w/wo stenting in bypass graft ?
  ✔ Patency ?
① **Lt. subclavian-axillary arterial occlusion**
- To construct bi-directional system for treatment of graft occlusion

② **Y-graft occlusion to rt. SFA**
- To confirm the safe revascularization for graft occlusion
- To improve RuIII

③ **Y & Lt. femo-pop bypass graft occlusion**
- To improve RuV and prevent major amputation
1st session
lt.subclavian-axillary arterial occlusion
◆ Echo guided Y-graft puncture
◆ 4Fr→6Fr→Cut
◆ Echo guided Y-graft puncture
◆ 4Fr → 6Fr → Cut → 6Fr sheath
◆ 0.035” wire, 4Fr Tempo

Y-graft anastomosis site
Ant: 4FrTempo
Ret: 6FrParentPlus23cm via lt.brachial a.
Ant: 0.035’ stiff wire, 4FrTempo
Ret: RegaliaXs, CarnelianS.
Ant: Naveed15g, CorsairArmet, 4FrTempo
Ret: Naveed15g, CarnelianS.
Ant: Naveed15g, CorsairArmet, 4FrTempo
Ret: RegaliaXs, CarnelianS.
BC: JADE 3.0mm → SaberX 5.0×150mm → Life stent 6.0×40mm
2nd session
Y-graft occlusion to rt. SFA
Ant: 6FrParentplus90cm via lt.brachial A.
- Echo guided Y-graft puncture
- 4Fr → 6Fr → Cut
◆ Echo guided Y-graft puncture
◆ 4Fr → 6Fr → Cut → 8Fr Optimo
Ant: 0.035’ wire, 4FrTempo
Ant: 0.035’ wire, 4FrTempo
Ret: Command, CarnelianS, 4FrTempo
SaberX 5.0x100mm
Ret: prox.SFA puncture w echo guidance → 4FrSheath

Anastomosis site can not be found
Jupiter9-45g $\rightarrow$ JupiterMax100g $\rightarrow$ 18G needle rendezvous

Y-graft

Ant: 18G needle
Ret: 4FrTempo

SFA
Jupiter9-45g → JupiterMax100g → 18G needle rendezvous

Ant: 18G needle
Ret: 4FrTempo, RegaliaXs
Final session
Y &
lt.femo-pop
graft
occlusion
Y-graft ipsilateral puncture
Ant: Command, CorsairArmet
6FrParentPlus23cm → TVAC8Fr
TVAC8Fr aspiration, UK240000IU → SMART 7.0x80, 6.0x100
SMART8.0x100mm x2
→SaberX6.0x100mm
Final Angiogram
ABI 0→0.98, SPPd10/p11→76/74 mmHg
Conclusion

To acquire a procedure to surpass the probability for limb salvage.

1yr later
Limb salvage for critical limb ischemia due to hopeless complex diseases; multiple vascular and bypass occlusion

Thank you for your attention

Tokeidai Memorial Hospital
◆ T. Haraguchi, MD.
S. Kitani, M. Tan, Y. Igarashi, K. Urasawa

LINC2018 02.Feb.2018