A novel trans-collateral arterial embolization for traumatic pelvic artery injury in a patient with Leriche syndrome

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Disclosure

Speaker name:
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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
Trans-catheter artery embolization (TAE) is rapid and effective for massive bleeding due to pelvic fractures.

Case Overview

- A 85-year old male came to our hospital due to **traumatic shock**.
- He was already diagnosed as **Leriche syndrome**.
- He had a history of prior **right axillo-femoral bypass surgery** due to unhealed ischemic ulceration in his right toe.
Findings on admission

BP 89/55mmHg, HR 123 /min
Hb 8.7 mg/dL
Plt 8.7 × 10^5/μL, PT-INR 2.44, D-dimer 322 μg/ mL

Shock vital  Anemia  DIC

※ DIC: Disseminated Intravascular Coagulation
Enhanced CT scan

Pubic bone fracture
Enhanced CT scan

Active bleeding from a branch of left internal iliac artery
Both iliac arteries were completely occluded.

CFA: Common femoral artery
A collateral channel from femoral circumflex artery to intra-plevic artery!!
Angiography

Antegrade angiography
Femoral circumflex artery and well-developed collateral channel from FCA to obturator artery were identified.

FCA: Femoral Circumflex Artery
TAE

**Ipsilateral antegrade system**
Guiding sheath: 4.5Fr Parent Plus (Medikit)
Micro-catheter: Corsair (ASAHI)
Guide wire: Regalia XS 1.0 (ASAHI)
TAE

Collateral channel tracking
Micro-catheter: Corsair (ASAHI)
Guide wire: Regalia XS 1.0 (ASAHI)

Guidewire couldn’t advance to the correct direction.
TAE

**Collateral channel tracking**
Regalia XS 1.0 and Corsair placed in the branch (wrong direction).

New guidewire and micro-catheter advanced to the correct direction.

Micro-catheter: prominent  
(TOKAI MEDICAL)  
Guide wire: Regalia XS 1.0  (ASAHI)
Collateral channel tracking
Micro-catheter: prominent
(TOKAI MEDICAL)
Guide wire: Regalia XS 1.0 (ASAHI)
The bleeding site from obturator artery was identified.
TAE

Collateral channel tracking
Micro-catheter: prominent
(TOKAI MEDICAL)
Guide wire: Regalia XS 1.0 (ASAHI)
TAE

Super-selective contrast injection
Super-selective TAE
TAE was conducted using gelatin sponge and coils.
Final angiography
Summary

We experienced the successful challenging trans-collateral super-selective TAE for massive intra-pelvic bleeding in patients with Leriche syndrome.
Thank U for Ur attention!
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