Endovascular treatment for long superficial femoral artery-chronic total occlusions using the Gogo catheter with IVUS via a popliteal puncture (GIP) method is effective, safe, and useful

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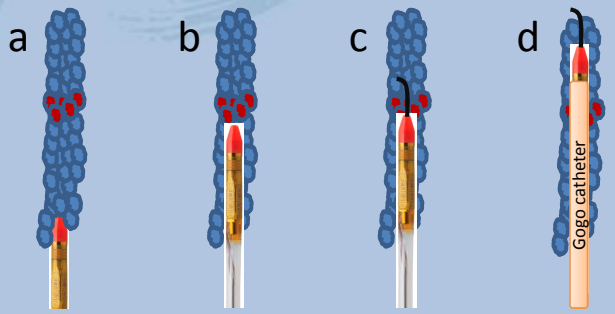
[Background] Since the blood vessel diameter at the proximal is clearly larger than the distal end the CTO and body surface duplex guide can also be used in the proximal part, it is easier to introduce a retrograde GW into the proximal end.

[Purpose] To investigate the safety and usefulness of the GIP method.

[Method] We performed EVT for long SFA-CTOs by the GIP method in 31 consecutive cases (male 20/female 11, mean age was 75.6±7.6) from May 2017 to November 2018. Hemostasis of the popliteal artery was achieved using a commercially available compression hemostatic kit (Tometa-kun, XEMEX, Japan).



a. IVUS preceding (blunt approach)
b. Hard part where IVUS does not proceed
c. GW preceding
d. Advanced Gogo catheter towards IVUS for reinforcement

GIP method, **GIP**: **G**ogo catheter with **I**VUS via **P**opliteal puncture

[Result] Successful revascularization was achieved in all cases (in two cases, a femoral artery puncture was added, and bi-directional approach was used, and in one case, a CROSSER system was used).

Fluoroscopy time	42.2±30.4 minutes
Radiation dose	93.7±78.7 mGy
Contrast medium	15.0±9.6 ml
Procedure time*	42.1±40.2 minutes
Complication	only 2 small hematomas

*The procedure time was defined as from the start of the popliteal artery puncture to the time the GW passed through the CTO lesion, including posture transforming time from prone to spine position.

[Conclusion] EVT for long SFA-CTOs using the GIP method was effective, safe, and useful.