Endovascular Treatment for Iliac Occlusion with Massive Thrombi Using Extemporaneous Embolic Protection System

Yukiho Hirota

Hiroshi Kubota, Tetsuya Nomura, Yu Sakaue, Yusuke Hori, Daisuke Ueno, Kenichi Yoshioka, Disuke Miyawaki, Masakazu Kikai, Natsuya Keira, Tetsuya Tatsumi

Department of Cardiovascular Medicine
Kyoto Chubu Medical Center, Kyoto, Japan
Disclosure
Speaker name: Yukiho Hirota

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
In-stent or complex native lesions are considered as higher risk for distal thromboembolism during EVT for lower extremities. J Vasc Surg 53(2): 347-52, 2011.

Embolic protection devices are categorized into three types: flow preservation devices, distal balloon occlusion devices, and proximal protection devices.

There are some reports regarding the usefulness of the Optimo® balloon-tipped occlusion catheter.
【Patient】
94-year-old female

【Comorbidity】
Hypertension

【Present illness】
She was admitted to our hospital for the treatment of refractory skin ulcer on the right foot. Her ankle brachial pressure index (ABI) on the right side was unmeasurable. Limb ultrasonography showed total obstruction from proximal part of the common iliac artery (CIA) to the distal part of the superficial femoral artery (SFA). We planned an endovascular treatment for the right lower extremity.
Physical Examination

Height/Weight: 150.0cm/32.6kg
Chest and abdomen: No abnormal finding
Skin ulceration on the right external dorsum.

Chest X-ray
CTR 46%

Electrocardiography
Within normal limits
Examination

【ABI】
Right: unmeasurable
Left: 0.80

【Limb ultrasonography】
Total obstruction from the proximal part of the CIA to the distal part of SFA.

【Laboratory data】
BUN 15.1mg/dl, Cre 0.53mg/dl, CRP 0.7mg/dl, WBC 7,030/μL
EVT (1st session)

antegrade approach
6-Fr ParentPlus
EVT(1st session)

Ruby Hard GW
IVUS and Guideliner PV
EVT (1st session)

1.5mm J-shaped-tip Radifocus guidewire
4-Fr CXI catheter
EVT (1st session)

Occluded SFA

DFA

Epic 8.0/80
EVT (1st session)

Occluded SFA

DFA

Epic 10/60
EVT (1\textsuperscript{st} session)
Surgical time
5h 45m
Fluoroscopy time
2h 51m
Radiation dose
1.12Gy
Contrast medium
192mL
EVT(2\textsuperscript{nd} session)

contralateral approach
6-Fr Destination guiding sheath
EVT(2\textsuperscript{nd} session)

TresureXS12 with IVUS

Autobahn
EVT (2nd session)
EVT(2nd session)

Thrombus

8-Fr Sheath

Φ4.0mm Balloon

Extemporaneous embolic protection system
EVT (2nd session)
EVT (2\textsuperscript{nd} session)

Surgical time: 5h 21m
Fluoroscopy time: 2h 12m
Radiation dose: 0.84Gy
Contrast medium: 160mL
Wound healing
Discussion

OPTIMO®

8-Fr Sheath

Φ6.0mm Balloon

Φ4.0mm Balloon
Distal embolism can occasionally be critical when we treat the lesion with massive thrombi.

We constructed a very simple but possibly useful embolic protection system.

It may reduce costs for devices and complexity of EVT procedures.
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