Successful EVAR with Chimney Technique for AAA with Short Aortic Neck

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76 y/o Male

- **CC:**
  - Pulsatile abdominal mass

- **PMH:**
  - Hypertension, Cerebral infarction, Pulmonary emphysema

- **HPI:**
  - A 76 years old male complained pulsatile abdominal mass. His family doctor had detected a 65mm abdominal aortic aneurysm (AAA) and referred him to our hospital. Upon consultation with vascular surgery for surgical reconstruction, the patient was found unsuitable for surgery because of severe pulmonary emphysema. We planned EVAR to treat this AAA.
Preoperative CT Angiogram
Therapeutic strategy

Short aortic neck → Chimney technique

A-B: 8.13 mm

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EVAR
Nerve Block and Femoral Artery Cutdown
EVAR
Coil Embolization

Brachial sheath: 5Fr Destination 90cm
Guide-wire: 0.014 inch Cruise
Number of platinum coil use: 5
EVAR
Initial Angiogram
EVAR
Deployment of Stent Graft

Stent graft (Excluder) Main body (left): 28.5mm*180mm
Contralateral leg: 14.5mm*140mm
Leg extender: 10mm*70mm
EVAR
Chimney Technique

Lt. renal artery stent: 6*18mm Palmaz genesis
Aortic extender: 28.5mm*33mm
EVAR
Final Angiogram
Postoperative CT Angiogram
We treated a 65mm infrarenal AAA with short aortic neck by EVAR.

Because the aortic neck was short, we performed EVAR using the “chimney technique” to preserve left renal artery flow and to obtain an adequate sealing zone.

No endoleak was found in follow-up CT angiogram.

CT angiogram revealed patent left renal artery and there was no deterioration of renal function.
Conclusion

- We treated a 65mm infrarenal AAA with short aortic neck by EVAR.
- After this procedure, no endoleak was found and renal function did not worsen.