Branched with Fenestrated Endografts for Treatment of Complex Arch Lesions

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Castor (MicroPort) Single Branched Stent-graft in China

Single Branched stent-graft (Castor) was available in Chinese Market from 2017.

The indication of Castor was limited in Z2-Z3 Arch Lesions.

Designing by measurement from CT workstation and customizing by local company. Single Branch for LSA with Fenestration for IA and LCA.
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From August 2010 to March 2017

- 41 cases: Male 34, Female 7, Age: 58 ± 15.1
- Dissection 32, Aneurysm 9
- Branch for LSA with fenestration for LCA and IA: 28
- Branch for LCA with fenestration for IA: 8
- Branch for IA with fenestration for LCA and LSA: 5

The median follow-up: 61 months (19 to 98 months)
- 40/41 planned branches were patent
- 2 fenestrations occluded (small fenestration without in-stent)
- No complication of cerebral infarction
- One death of retrograde dissection after the procedure
- Two deaths of Myocardial Infarction and Heart Failure
- One retrograde dissection to open
- Two minor endoleaks were found and left into further observation.
Discussion: Advantage of Branched with Fenestrated Endografts

- Depending on the measurement and design, if the branch was in right position, the fenestration would be in right position.
- The deployment of branched with fenestrated Endograft is safe, easy and accurate because of deployment system.
- Do not worry about cerebral ischemia during procedure.
- Big fenestration did not need in-stent but small fenestration need in-stent.

Discussion: Limitation of Branched with Fenestrated Endografts

- Because it need take several weeks for customizing, it is not good for acute cases.

Developing of the devices for Fenestrating in situ

- OffRoad
- LifeTech
- Puncture Needle

Venous laser, Quick, avoiding bubbles, limited penetration depth.

Conclusion and Future

- Single branched stent-graft combined with fenestration in vitro or in situ maybe the future of totally endovascular treatment for complex aortic arch lesions.

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