New In Vitro System For Ch/EVAR: How It Will Improve Results And Decrease Complications By Leading To Standardized Techniques And Endograft Components

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Chimney EVAR

Off-the-shelf devices

Literature

Use of covered chimney stents for pararenal aortic pathologies is safe and feasible with excellent patency and low incidence of endoleaks

CT Angiography at 24 Months Demonstrates Durability of EVAR With the Use of Chimney Grafts for Pararenal Aortic Pathologies

ChEVAR Case

Neck diameter 28mm
Right renal artery diameter 7mm
Neck length 2mm
Neck diameter 28mm
Right renal artery diameter 7mm
Neck length 2mm

Fluid simulation system

CT Angiography
Injection of contrast medium

Fluid simulation silicon model

Evaluation of different abdominal devices combinations with Advanta
- Endurant and Advanta V12
- Incraft and Advanta V12
**Incraft and Advanta V12**

Evaluation of different chimney devices combinations with Endurant

- **Endurant** with self-expanding covered stents (Viabahn)
- **Endurant** with balloon expandable covered stents (Begraft and Begraft plus)

**Endurant with (Viabahn lined with bare stents)**

**Endurant with balloon expandable chimney grafts**

**Begraft**

**Begraft plus**

Impact of degree of aortic stent-graft oversizing
Conclusions

1. The area of the gutters varied depending on the different device combinations.

2. Appropriate device selection and 30% oversizing is important to obtain optimal results.