Multicentre(London/Nuremberg) clinical experience in BEVAR procedures – what do new devices offer me as a surgeon

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Disclosure

Speaker name: Said Abisi

I have the following potential conflicts of interest to report:

- ☒ Proctor/speaker: Gore, Cook, Bentley, Cryolife
- ☐ Employment in industry
- ☐ Stockholder of a healthcare company
- ☐ Owner of a healthcare company
- ☐ Other(s)

☐ I do not have any potential conflict of interest

BEVAR now

Increasing options…

CMD

Off- the-shelf solutions

What has been available

- Self-expandable BSG
  - Flexibility and conformability
- Balloon expandable BSG- stainless steel based - Smaller delivery system and precise deployment
- Different opinions, relining and reinforcement

What is new?

- BeGraft +: the latest balloon expandable BSG with double layers of Cobalt Chromium stents and ePTFE membranes.

What is different in B+

Cobalt Chromium: 1- radial force

2- kink resistance

3- Flexibility

4- Visibility

5- Struts can be thinned

(lower profile + better trackability)

ePTFE Membranes: sandwiched between 2 layers of stents without individually encapsulating the struts

London & Nuremberg

- Early Launch of BeGraft + 2017
- Collected data of high volume users of B+
- Sub group in depth analysis
- Evaluating common question about relining

Nuremberg data courtesy of Eric Verhoeven et al

2017-2020

- Combined experience of 295 branches in BEVAR for TAAA in 2 practices since May 2017

- Primary technical failure: 2/295
  - Disconnection due to advancement of sheath
  - Delivery balloon did not inflate

- Occlusion: 4/295 = 1.4 %

Nuremberg data courtesy of Eric Verhoeven et al

Further analysis - London

minimum diameter for target vessels:

4.5 mm for the renal arteries

6.5 mm for superior mesenteric and coeliac arteries

10-20% oversize

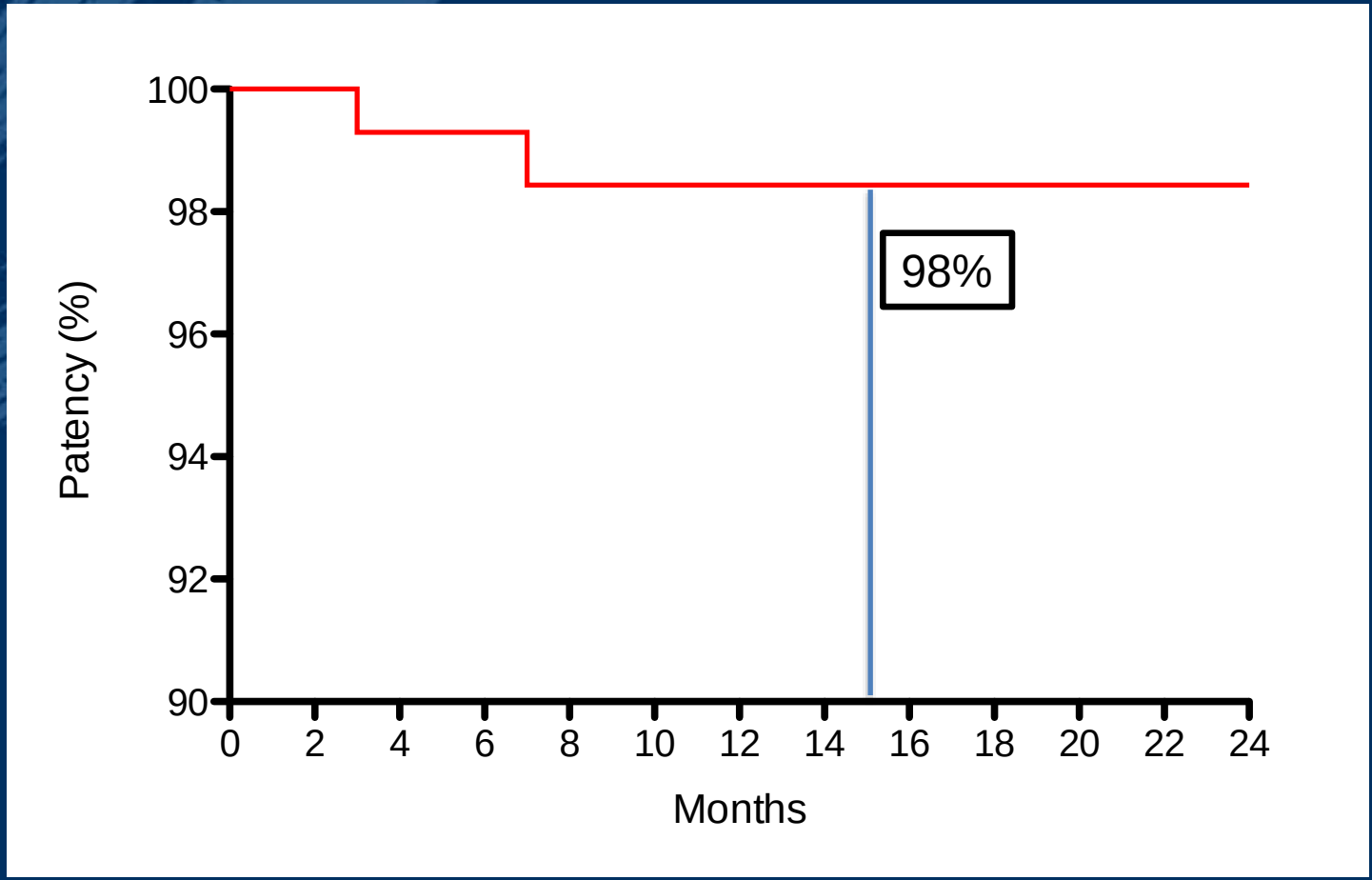
15 mm -20 mm sealing in the target vessel

Approximate overlap of 15 mm between BSGs

- Primary endpoint
  - Target vessel patency.

- Secondary endpoints
  - Target vessel instability.
  - Adjunct interventions including extension and relining.

Target Vessel Patency



Month	0	4	8	12	16	20	24
Number at risk	163	138	116	87	71	56	49

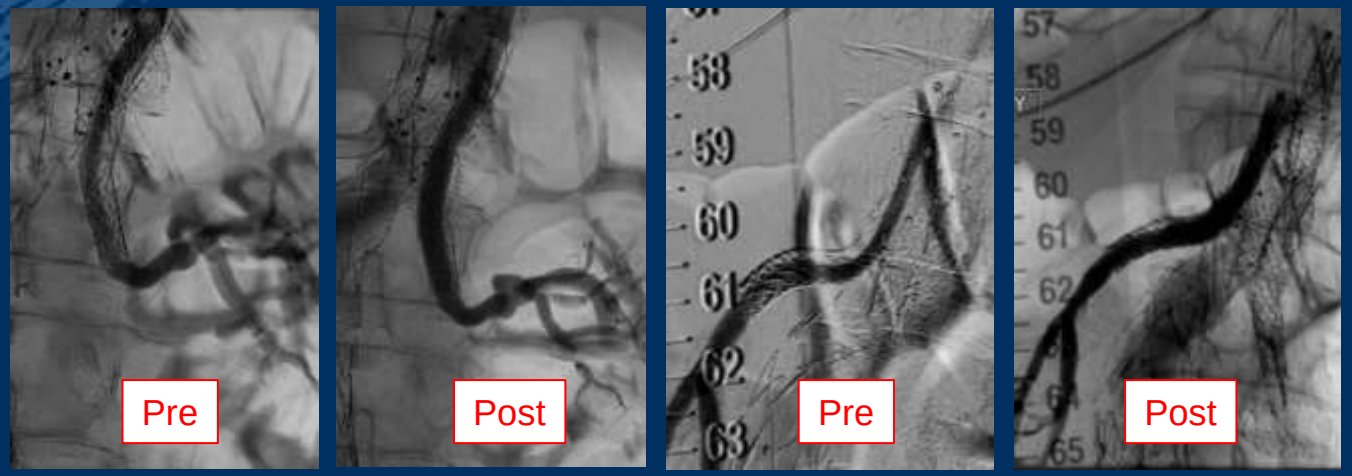
Secondary endpoints

- Target vessel instability as a composite endpoint as any death or rupture related to side branch, late BSG related reinterventions due to stenosis, occlusions, kink, fracture, dislodgment or endoleak (type 1 or 3)

- 4 events (2.4%)

Branch related instability

[2 occlusions- outer branches and 2 in-stent restenosis- inner branches)



Differentiate relining from extension

	Number
Distal extension with BSG	27
Proximal extension with BSG	3
Distal extension with uncov… expanding stent for di…	2
Distal ext… …overed self exp… …or excessive angulation	3

No routine relining

3% distal extension with self-expanding uncovered stent

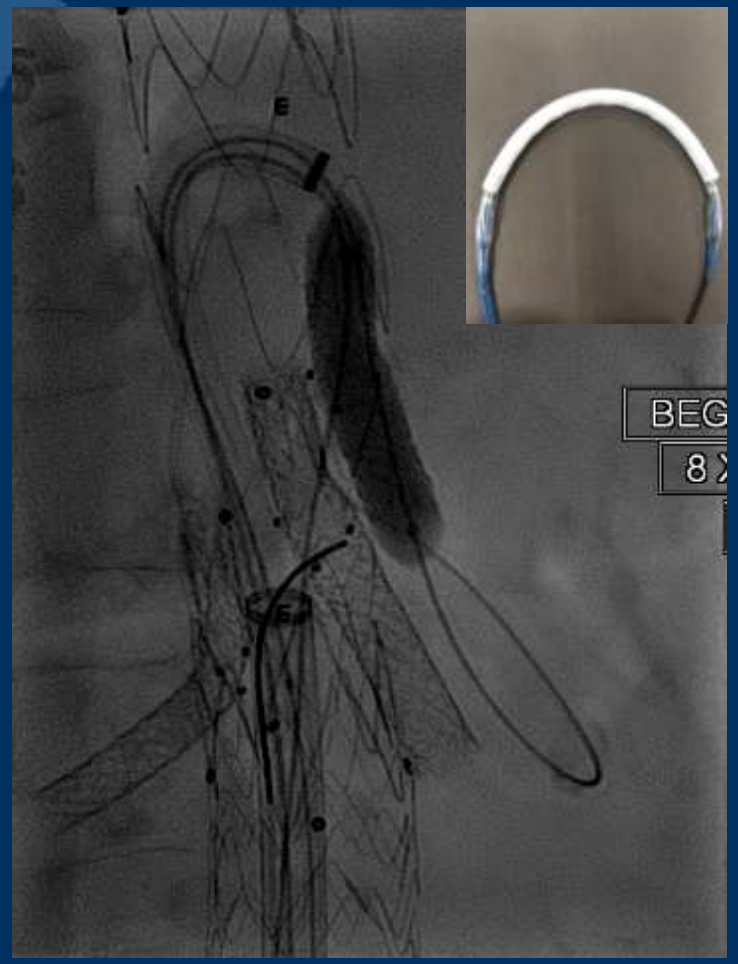
79% of the target vessels were treated with a single BSG

Outer branches vs inner branches

	Not extended	nded	Total
Inner	53	16	**69**
Outer		19	**94**
Total	128	**35**	**163**

No difference

Additional advantage



In summary

- Good outcomes for B+ as BSG in BEVAR
- No routine relining since introducing B+
- Clinical trial data awaited to prove the potential as on label BSG for BEVAR

Thank you