



Treatment of isolated infrarenal and pararenal aortic stenosis:

Why results are worse in women:

When Stents; When Stent-Grafts; When open bypasses

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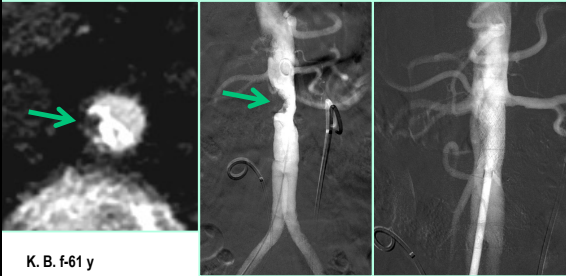
NO DISCLOSURES

Isolated infrarenal aortic stenosis

Cranial extension of balloon-expandable BeGraft aortic stentgraft



Implantation of balloon-expandable BeGraft aortic stentgraft



K. B. f-61 y

Isolated infrarenal aortic stenosis



Implantation of balloon-expandable BeGraft aortic stentgraft

C. P. f-50 y

Isolated aortic stenosis



- pain-free walking distance 150 m
- sexual dysfunction

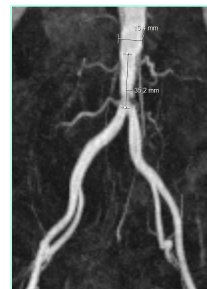
Implantation of balloon-expandable BeGraft aortic stentgraft

F. S. m-37 y

Isolated infrarenal aortic stenosis



pain-free walking distance 300 m



Limitation is the distance to aortic bifurcation due to the rather long balloon shoulder

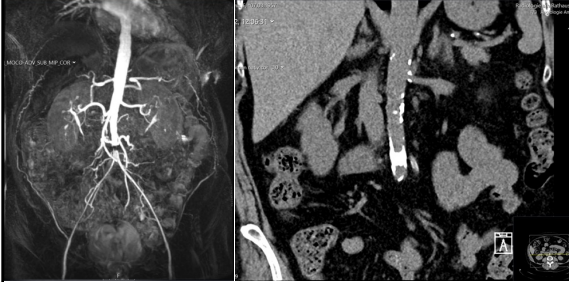
Repositioning of balloon after partial expansion necessary

S. F. f-47 y

Calcified short occlusion of aorta



MRA and CTA



E.T. f 65 J

Calcified occlusion of aorta



Angiography and recanalisation step by step using balloon-expandable BeGraft aortic stentgraft



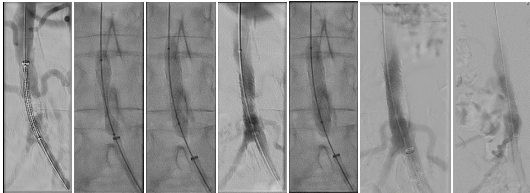
Transfemoral recanalisation of aortic occlusion and predilatation

E.T. f 65 J

Calcified occlusion of aorta



BeGraft aortic Stentgraft implantation step-by-step



E.T. f 65 J

Infrarenal isolated aortic stenoses or occlusions



Implantation of BeGraft aortic stentgraft –
Results mean FU of 31 months (0-58)

Gender-dependent disease

women 38
men 15

50 high grade stenoses and 2 total occlusions

➤ Technical success	53	100%
➤ Distal embolisation	0	0%
➤ Recurrent stenosis	0	0%
➤ Stent fractures	0	0%
➤ Rupture	0	0%
➤ Mortality	0	0%

Complications – women not preferred !



Problems in women:

- Heavier calcifications
- Smaller access arteries

Complications

- 2 women with occlusions of access arteries following use of Proglide plus Femoseal
- 1 woman with recurrent aortic stenosis due to massive calcifications, radial force not sufficient, reimplantation of a Bentley BeGraft covered stent

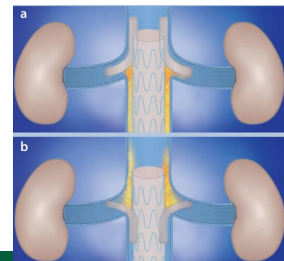
Complex pararenal aortic stenosis



- with massive calcifications involving visceral/renal arteries

All 7 consecutive cases were women!

- endovascular
 - periscope
 - chimney



Complex aortic stenosis: case 1+2

Transfemoral 10F 12mm Bentley BeGraft aortic stentgraft
Transbrachial 6F 6mm Bentley BeGraft peripheral stentgrafts

Pre Post

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CTA

D.R. f 70 y

Complex aortic stenosis

Angiography pre

Subtotal aortic stenosis

Renal artery stenosis

D.R. f 70 y

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Complex aortic stenosis

1 BeGraft aortic and 2 renal BeGraft peripheral

D.R. f 70 y

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Complex aortic stenosis

Final result

Aim is a good functional result rather than achieving normal aortic diameters...

D.R. f 70 y

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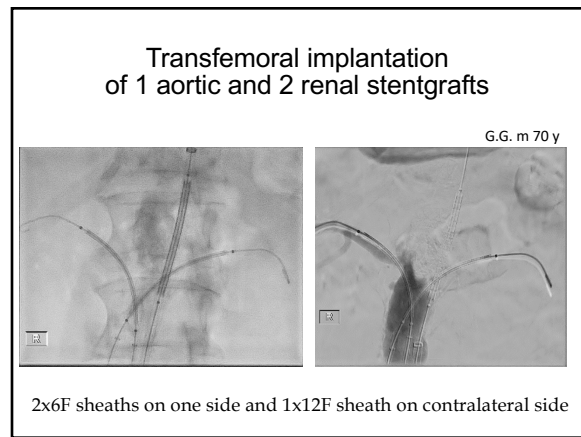
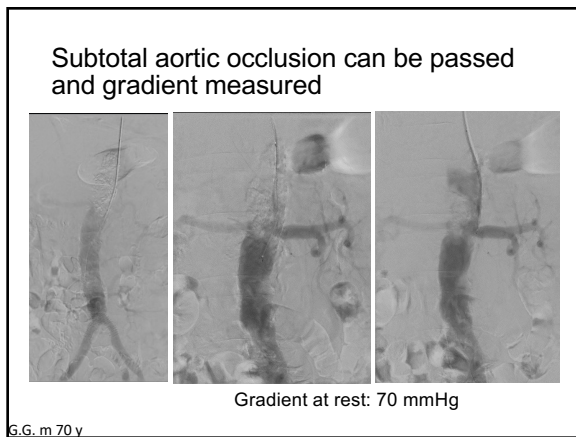
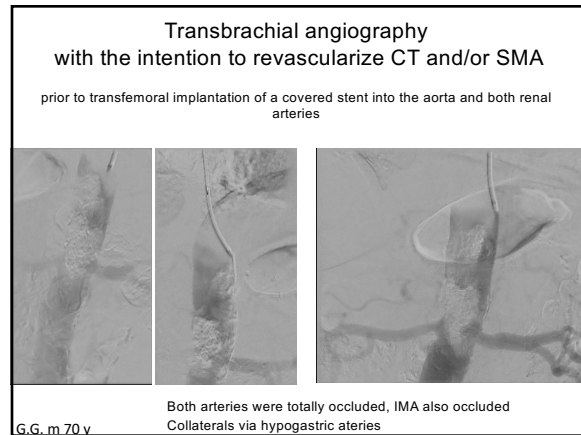
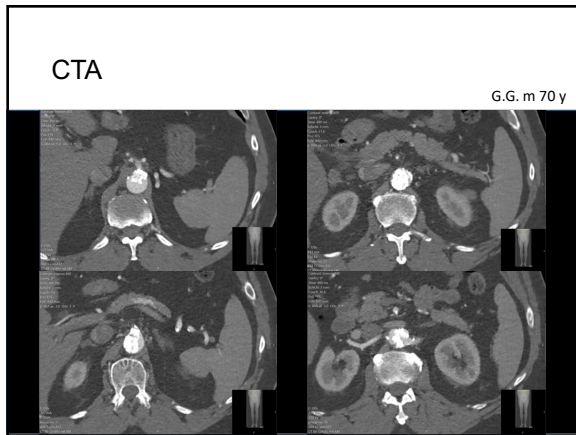
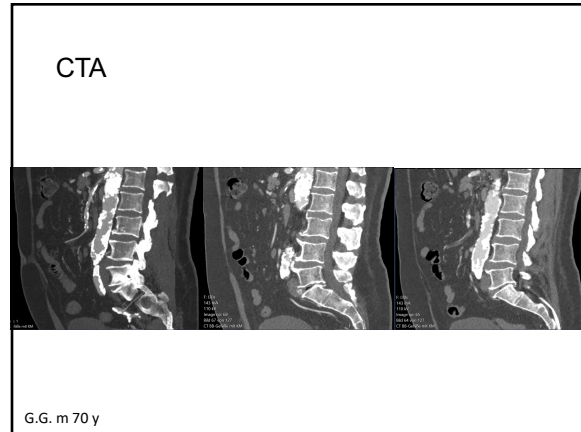
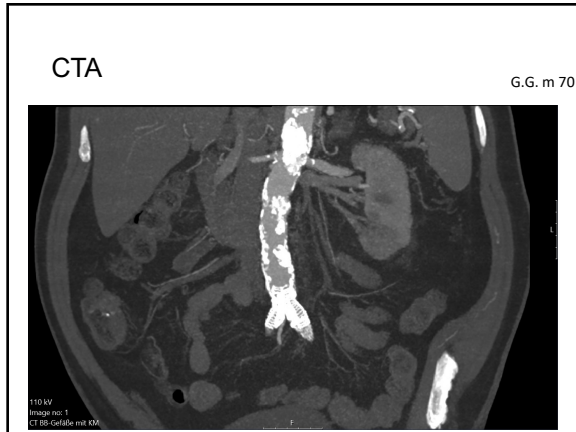
Complex aortic stenosis: case 3

Transfemoral 12F 16mm Bentley BeGraft aortic stentgraft
Transfemoral 2x6F Bentley BeGraft peripheral stentgrafts

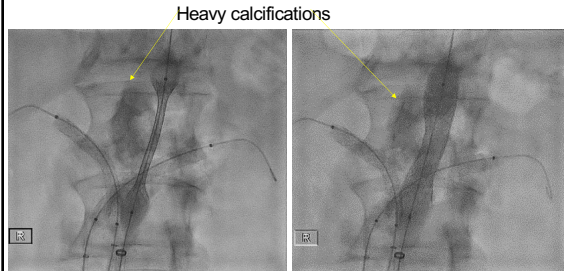
occlusions

Pre Post

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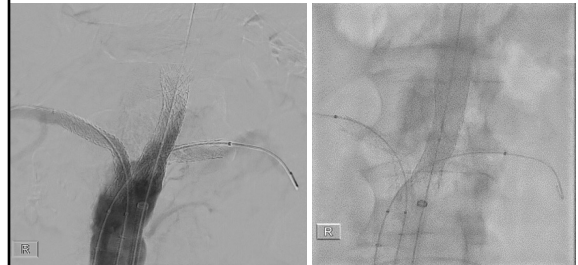


Transfemoral implantation of 1 aortic and 2 renal stentgrafts



G.G. m 70 y

Transfemoral implantation of 1 aortic and 2 renal stentgrafts

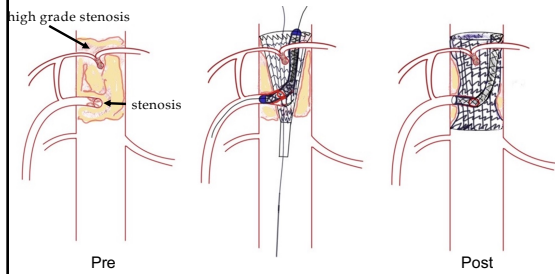


G.G. m 70 y

Postdilation proximal aortic stentgraft

Complex aortic stenosis: case 5

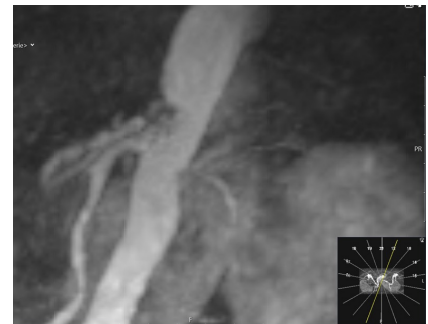
Transfemoral 6F 16mm Optimed Sinus XL stent
Transbrachial 6F 7mm Bentley BeGraft peripheral stentgraft



Pre

Post

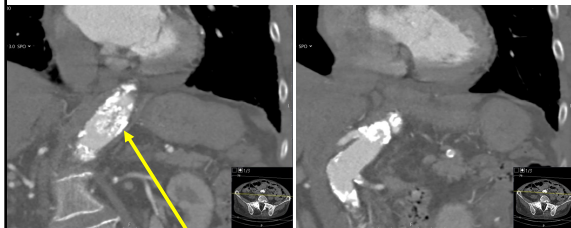
MRA



Severely stenosed offsprings of celiac trunc and superior mesenteric artery

S.M. f 80 y

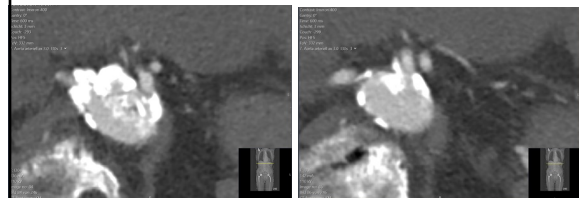
CTA



S.M. f 80 y

Aortic stenosis

CTA

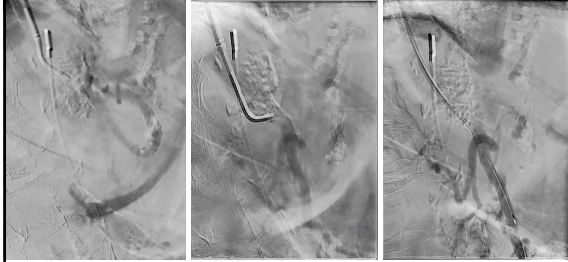


Offspring of celiac trunc

Offspring of SMA.

S.M. f 80 y

Angiography

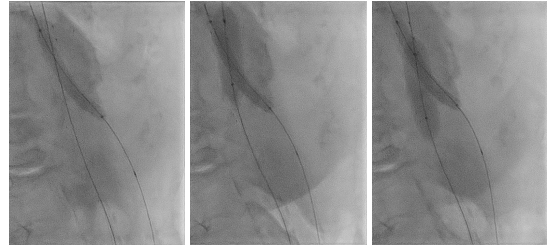


Cannulation of superior mesenteric artery

S.M. f 80 y

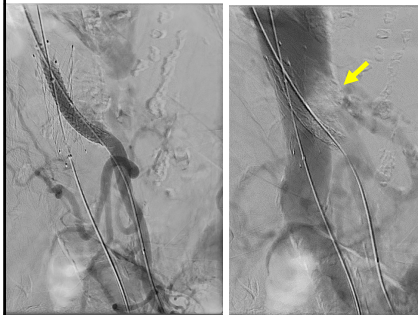
Simultaneous Implantation of stentgrafts

Transfemoral 6F 16mm Optimed Sinus XL stent
Transbrachial 6F 7mm Bentley BeGraft peripheral stentgraft



S.M. f 80 y

Final result



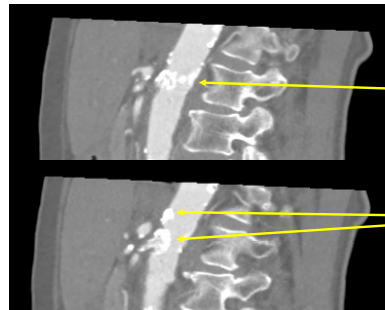
Sinus XL bare stent is used as celiac trunc could not be cannulated.

Preservation of perfusion of celiac trunc (arrow)

S.M. f 80 y

Complex aortic stenosis: case 6

Transfemoral 12F 14mm Bentley BeGraft stentgraft
Transbrachial 6F 7mm Bentley BeGraft peripheral stentgrafts



Aortic stenosis

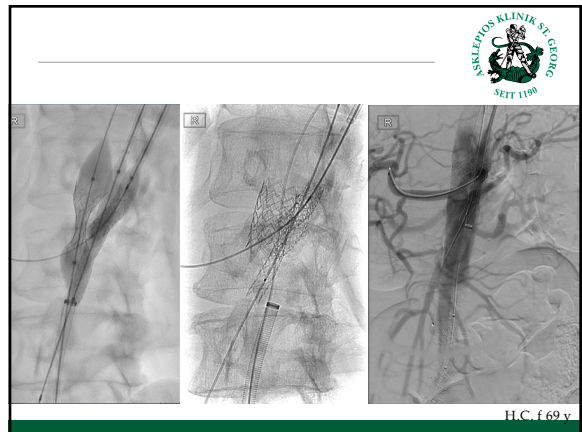
Stenosis of celiac trunc and SMA

H.C. f 69 y



Sheath retracted

H.C. f 69 y



H.C. f 69 y

Complex pararenal aortic stenosis



- with massive calcifications involving visceral/renal arteries

Cases remain rare, about 1 in 10 of cases with calcified aortic stenosis

No major complications despite complex procedures with several arterial accesses

However, women had severe generalized calcifications and comorbidities.

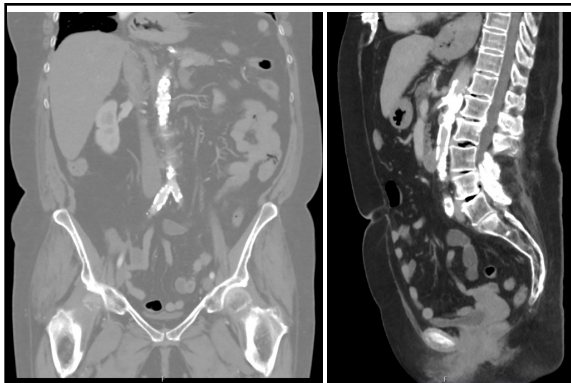
2 of the 7 pts died in the meantime from their comorbidities, not related to the procedure

Complex aortic stenosis



- with massive calcifications involving visceral/renal arteries

However,
sometimes open surgery remains the last option....



H.K. 74y f

Calcifications of the complete visceral segment:
No sufficient endovascular access to visceral and renal arteries

Thank-you

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