




Update On Fenestrated Endovascular Aortic Repair Plus Chimney Graft For TAAA Repairs: The FEVAR/Ch Technique: When And How Is It Beneficial




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 THE UNIVERSITY OF CHICAGO MEDICINE
AT THE ROOSEVELT UNIVERSITY CAMPUS

Disclosures

- *Consultant:* Cydar, CyndRx (equity interest), Endoron, Endospa, Medtronic, Shockwave, Silk Road, VITAA, and WL Gore

Can techniques be combined?

[View Endovascular Surg. 2022 May;56\(4\):444-447. doi: 10.1177/15385744211068650. Epub 2022 Feb 28.](#)

Fenestrated Endovascular Aortic Repair With Chimney Graft for Thoracoabdominal Aneurysm

Sara Gaines ¹, Ashley J Williamson ¹, Julie Park ¹, Tissa A Babrowski ¹, Ross Milner ¹

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 PMID: 35227139 DOI: 10.1177/15385744211068650

Abstract

Thoracoabdominal aneurysms pose technical challenges for endovascular repair due to involvement of visceral and renal vessels. We report a case series of four patients diagnosed with thoracoabdominal aneurysm who underwent complex endovascular repair with fenestrated Device and chimney grafts (FEVARCh). FEVARCh is a technically feasible approach for repair of thoracoabdominal aneurysms that involve renal, superior mesenteric, and celiac arteries for patients not appropriate for open surgical repair. Further studies are needed to understand the implications of resultant Type 1a endoleaks and strategies to minimize the displacement of the main body graft with adjunct chimneys.

Keywords: aneurysm; chimney graft; endovascular repair; fenestrated graft; thoracoabdominal.

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Thoracoabdominal aneurysms pose technical challenges for endovascular repair due to involvement of visceral and renal vessels. We report a case series of four patients diagnosed with thoracoabdominal aneurysm who underwent complex endovascular repair with fenestrated Device and chimney grafts (FEVARCh). FEVARCh is a technically feasible approach for repair of thoracoabdominal aneurysms that involve renal, superior mesenteric, and celiac arteries for patients not appropriate for open surgical repair. Further studies are needed to understand the implications of resultant Type 1a endoleaks and strategies to minimize the displacement of the main body graft with adjunct chimneys.

Keywords: aneurysm; chimney graft; endovascular repair; fenestrated graft; thoracoabdominal.

What does this accomplish?

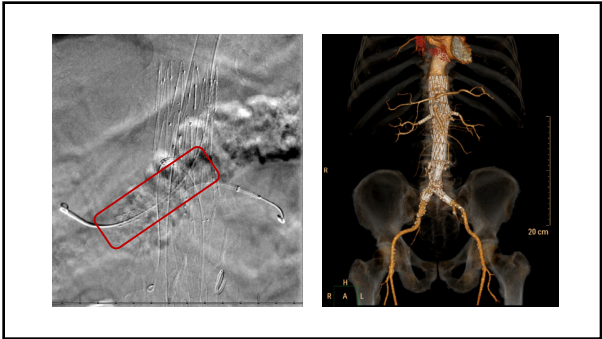
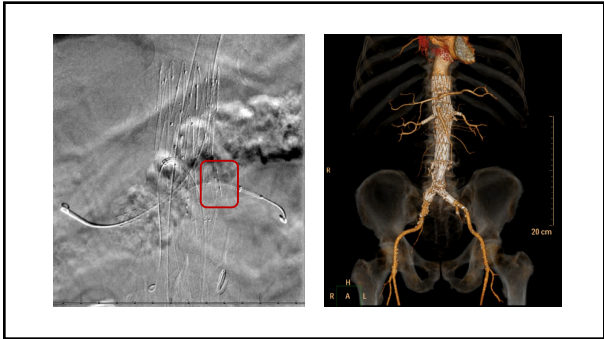
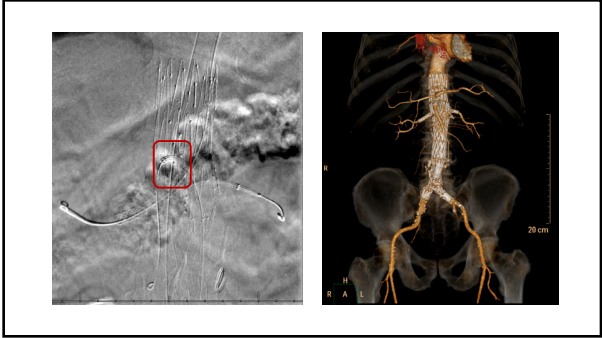
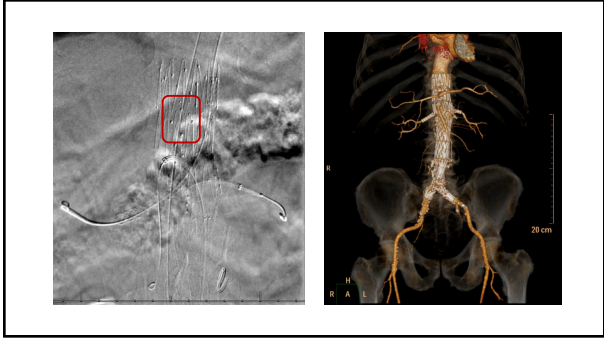
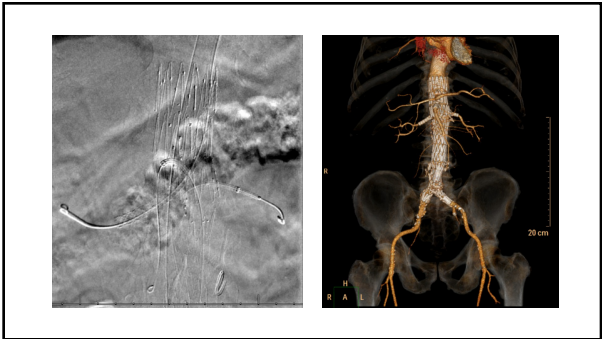
- Type IV TAAA Repair
 - High risk patients
 - No need for physician modification of devices

Goals

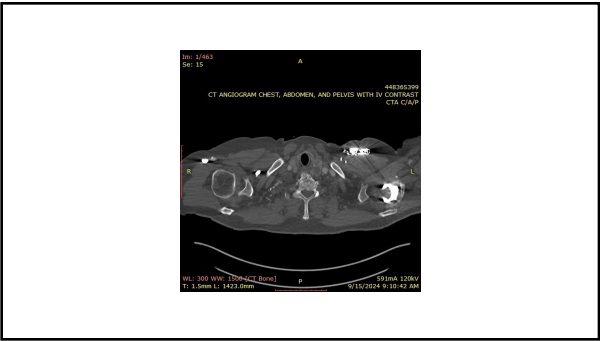
- Gain as much seal zone as possible

Goals

- Gain as much seal zone as possible
- Typical design:
 - Large fenestration – Celiac
 - Small, stented fenestration – SMA
 - Small, stented fenestration – one of the renal arteries
 - Parallel graft – one of the renal arteries

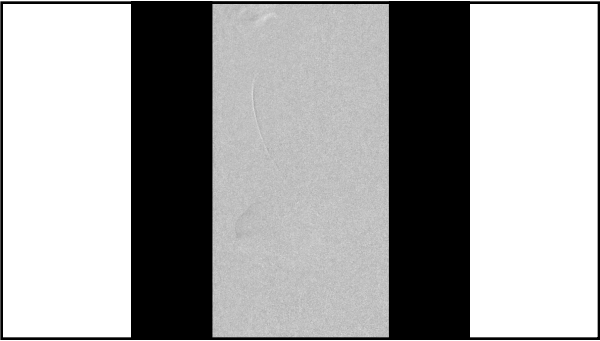


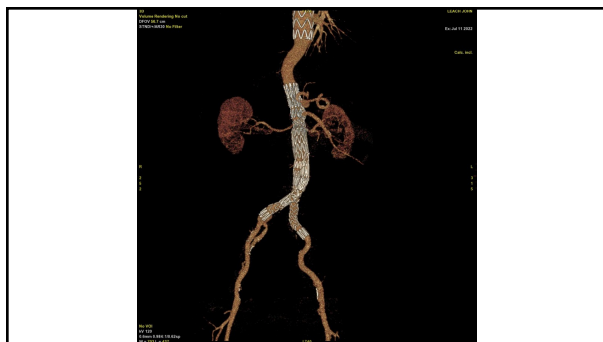
6-year Follow-up Imaging



- ### Goals
- Gain as much seal zone as possible
 - Typical design:
 - Large fenestration – Celiac
 - Small, stented fenestration – SMA
 - Small, stented fenestration – one of the renal arteries
 - Parallel graft – one of the renal arteries
 - Theme can change based on anatomy

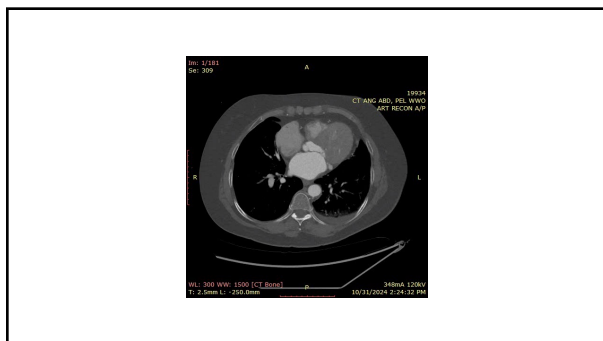
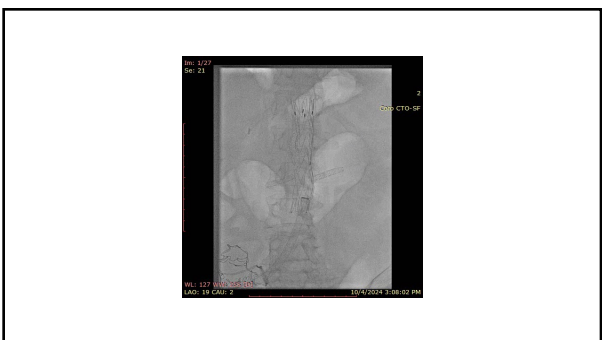
- ### Goals
- Gain as much seal zone as possible
 - Typical design:
 - **Large fenestration – Celiac**
 - **Small, stented fenestration – SMA**
 - **Parallel grafts – both renal arteries**
 - Theme can change based on anatomy



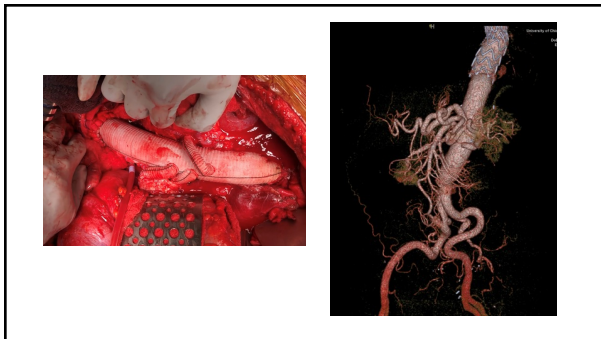


Updated Technique

- Can use with laser fenestration as well



Be Creative...but not at patient expense



Conclusions

- Do not use more than 2 parallel grafts through a seal zone
- Get creative and expand repairs to TAAA
- Choose what is best for each patient and use all of your tools

