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Reconstruction of the Aortoiliac segment in occlusive disease using the AFX[®] unibody stent

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Disclosure

Speaker name:

Dr Angie Arnold

I have the following potential conflicts of interest to report:

- I do not have any potential conflict of interest



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Aortoiliac occlusive disease (AIOD)

- No endovascular device specifically engineered for the treatment of AIOD

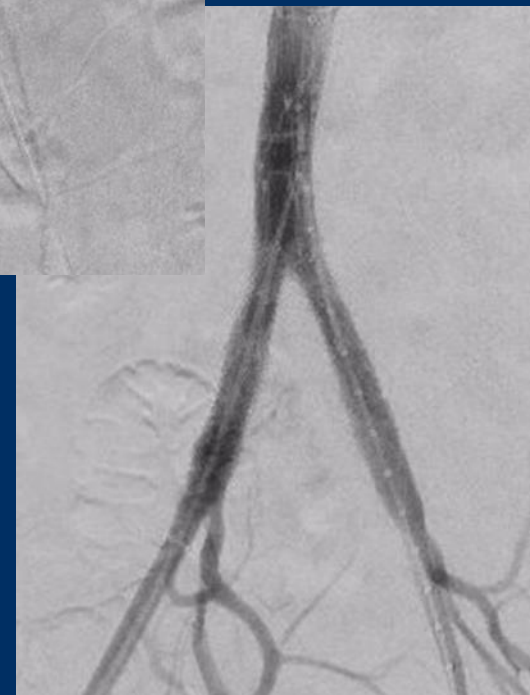




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AIOD

- Endologix AFX[®] stent has been used
- Limited published series demonstrate this is safe and effective
 - TS Maldonado et al EJVES 2016 52:64-74
 - Van Haren et al JVS 2017; 65:398-405





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AFX Design Features

- Unibody self expanding stent
- Durably PTFE (multilayered) on inner cobalt-chromium stent cage
- Low profile access (17F/7F)
- Anatomical reconstruction
- Suitable for “narrow” distal aorta



14 mm



12 mm





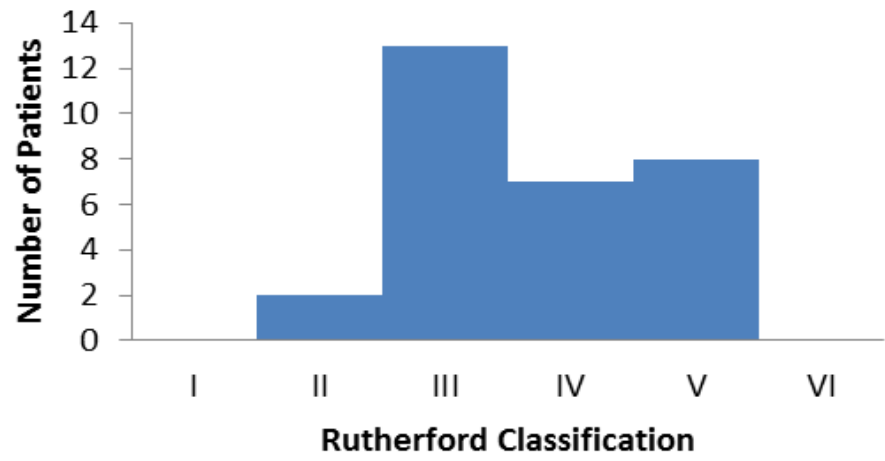
FMC Cohort

- Sept 2016 – Nov 2018
- 30 patients

Average age		69
Hypertension		23
Smoking	15 active, 7 ex-smoker, 6 non-smoker, 2 unknown	
Ischaemic heart disease		8
Renal impairment		4
Hypercholestromlaemia		15
Diabetes		3

Rutherford Classification of patients pre-operatively

(n=30)



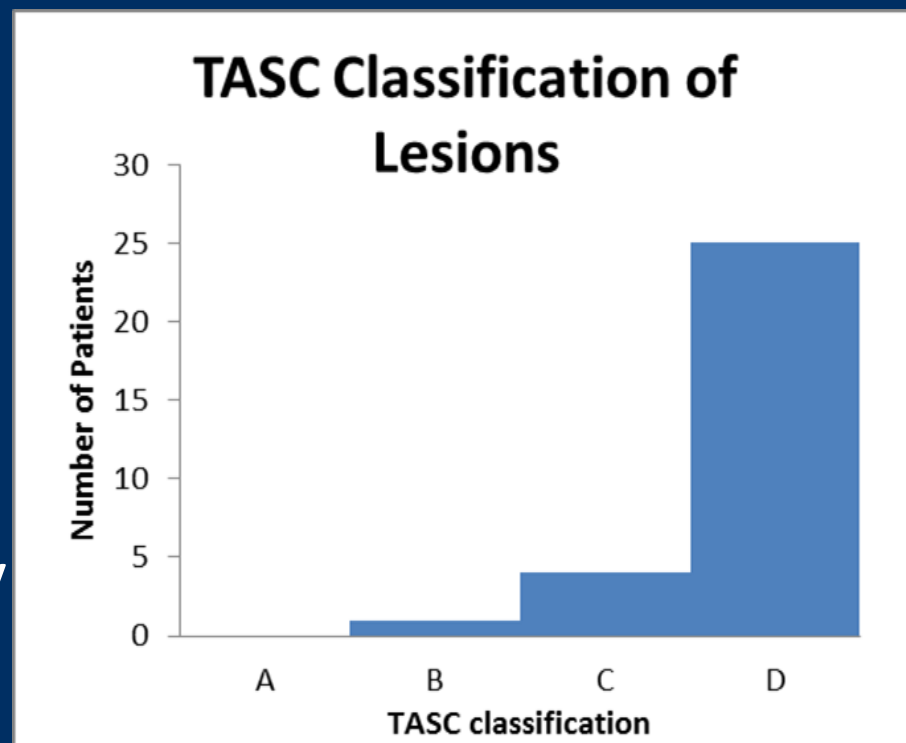


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Extensive Disease

22 patients required adjuvant treatment

- Extension of treatment zone to CIA or EIA with stenting
- Femoral endarterectomy
- Combination





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Outcomes

- **Mortality**
 - 30 day mortality = 0
 - 12 month mortality = 3
 - CLI
 - Significant co-morbid disease
 - Death unrelated to stenting
- **Morbidity**
 - 9 (31%) complications at 30 days

Complication	Details	Outcome
Surgical site	Groin Haematoma with post-operative anaemia. Open access with CFAE.	Conservative management with transfusion
	Superficial groin collection post open access with endarterectomy.	Incision and drainage
	Superficial groin collection post percutaneous access with closure device (proglide).	Incision and drainage
	Groin collection involving prosthetic patch post CFAE.	Incision and drainage + patch replacement with vein and sartorial flap
Coronary	Type 2 Non-STEMI secondary to anaemia. Right CFA endarterectomy.	Resolved with medical management
Respiratory	Exacerbation COPD. Percutaneous access.	Resolution with course steroids and oral antibiotics
Urinary	Post-operative re-admission with retention. Percutaneous access.	Long term IDC for treatment pre-existing BPH



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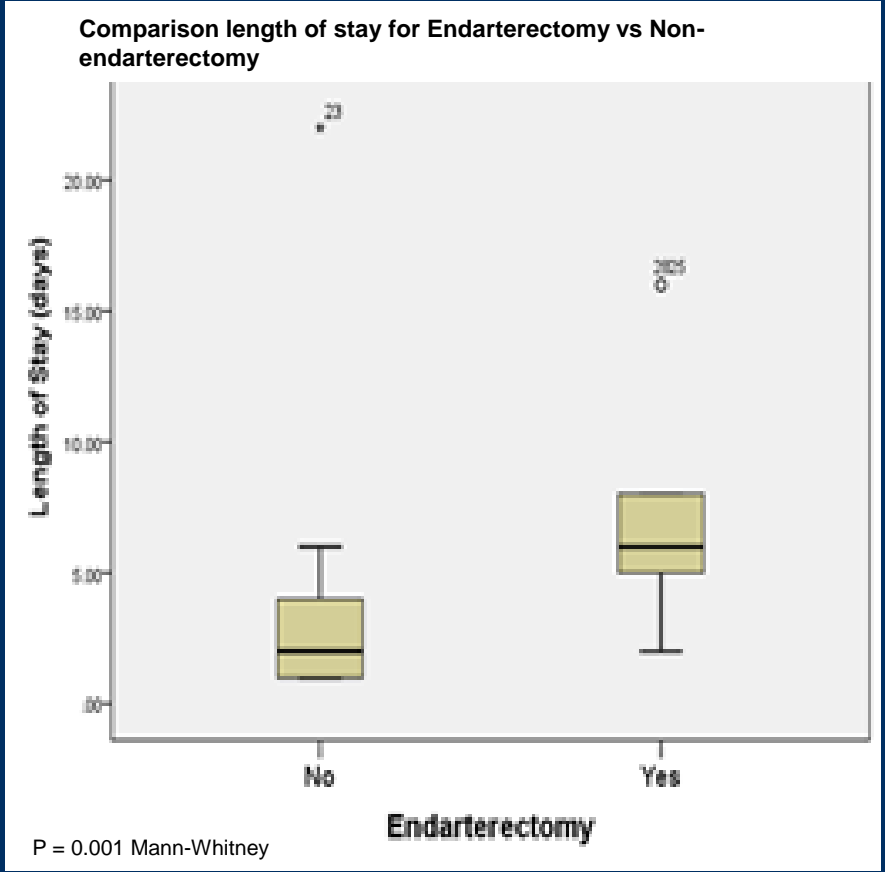
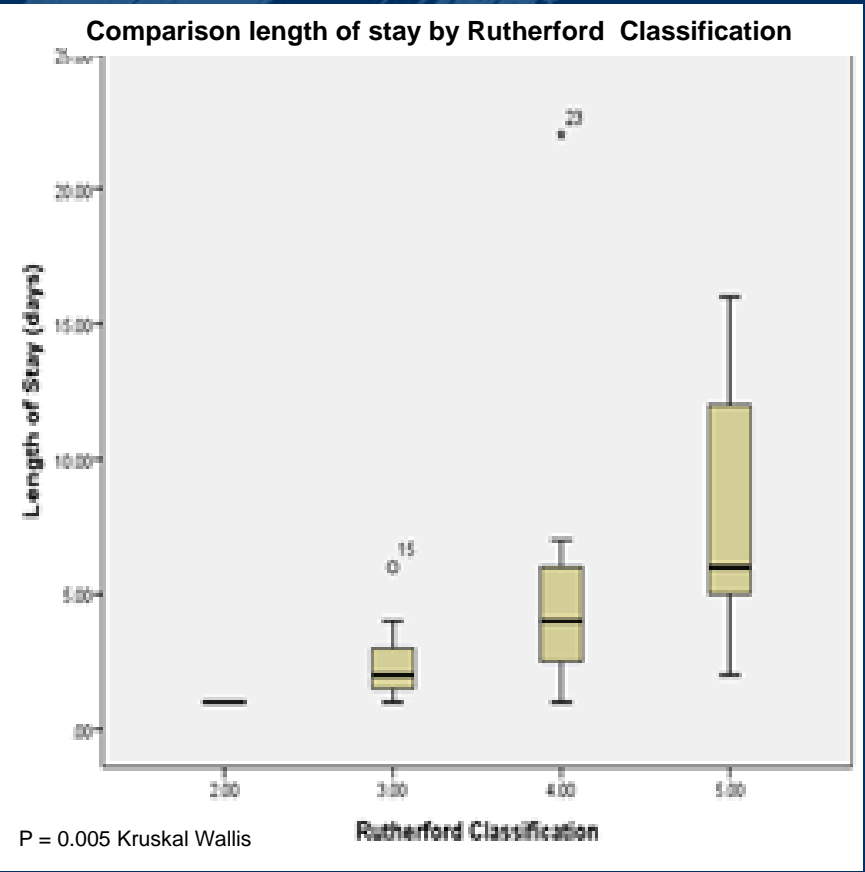
Outcomes

- 100% Technical angiographic success
- 100% Primary Patency at 1 year (n=14)
- 0% TLR and Major Limb amputation rate



Outcomes

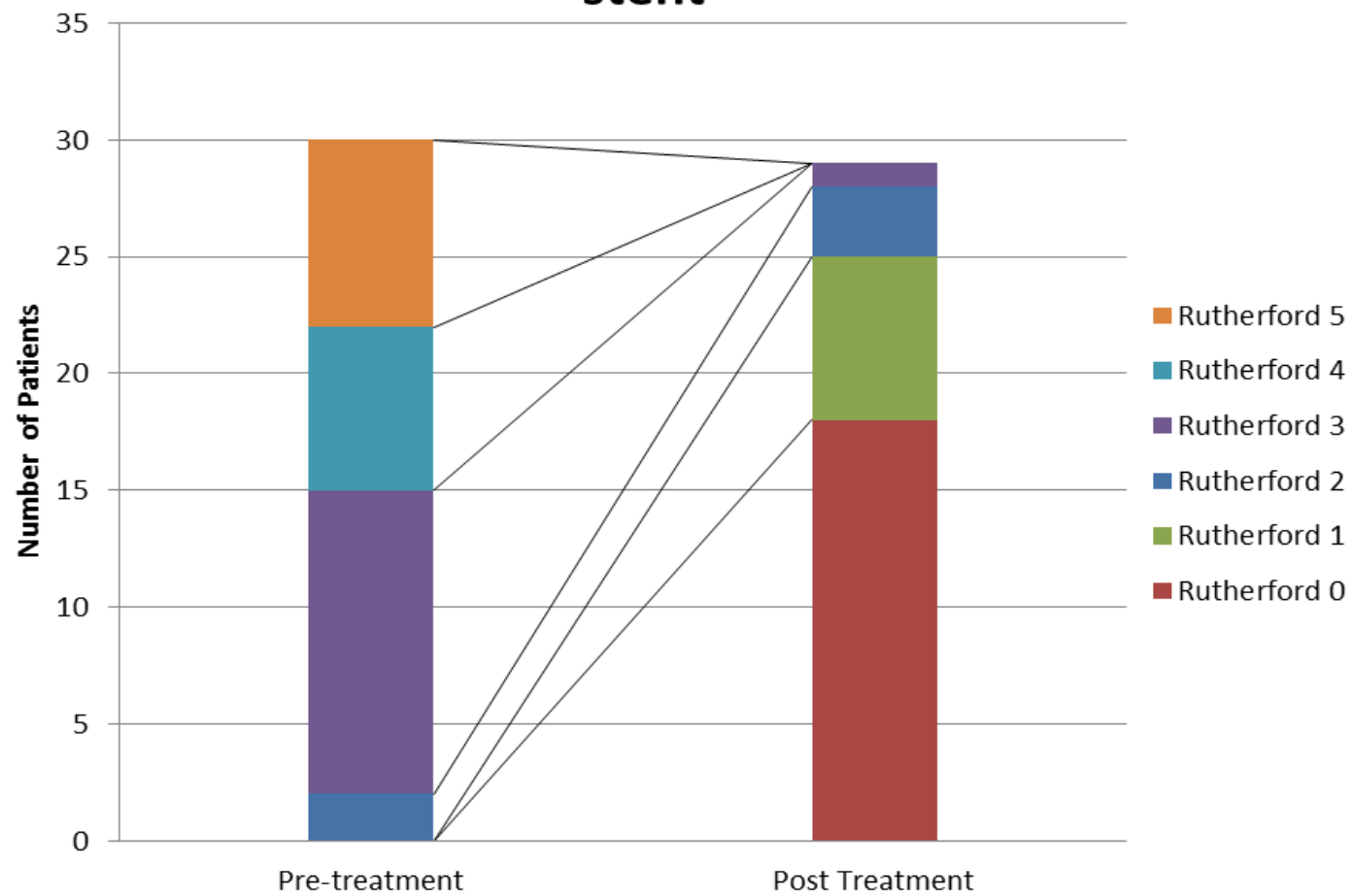
- Mean LOS 3 day (1-22)
- Increased LOS with tissue loss and adjunctive endarterectomy





Outcomes

Rutherford Classification Pre and Post AFX[®] stent





Costs

Surgery Type	Median Stay (days)	Total Costs (AUD)
Aorto-BiFemoral bypass	6.68	\$38,580

Endovascular Treatment	Median Stay (days)	Total Costs (AUD)
AFX stent	1.10	\$16,661

- Financial years 2015/16 and 2016/17



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Conclusion

- Effective and safe treatment option for advanced AIOD disease
- Cost-effective



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