DIRECTIONAL ATHERECTOMY for the Treatment of Recurrent Distal Anastomotic Stenosis of Aortobifemoral Bypass

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Disclosure

I have the following potential conflicts of interest to report:

- [x] Speaker (Medtronic)
- [ ] Employment in industry
- [ ] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [ ] I do not have any potential conflict of interest

Aortobifemoral Bypass Outcomes

355 aortoiliofemoral bypass procedures

5 Year Primary Patency: 85%

Limb Occlusion: 10%

Outflow Stenosis: 5%

Hertzer, NR, et al. *J Vasc Surg* 2007:45:527-35

50 yo Female with Recurrent R Leg Claudication

2002 – Coarctation repair with infrarenal aortic tube graft at outside hospital

2005 – Thoraco-L femoral bypass and femoral-femoral bypass

2008 – R femoral endarterectomy, revision of distal anastomosis

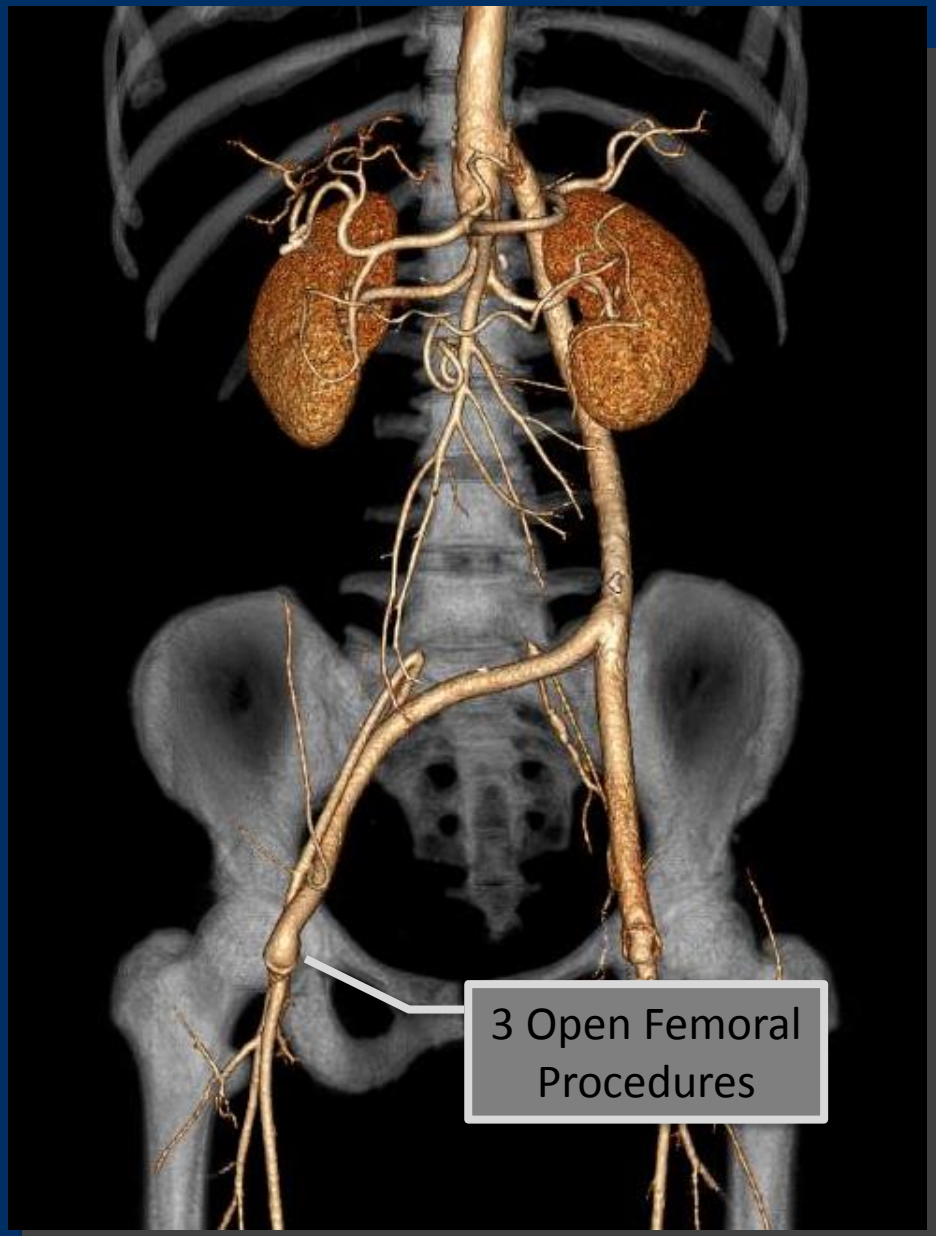
50 yo Female with Recurrent R Leg Claudication

2009 – Revision of thoracofemoral bypass, ligation of femoral-femoral bypass for recurrent R femoral anastomotic stenosis

2011 – Recurrent claudication and R femoral stenosis
(6mm cutting balloon angioplasty)

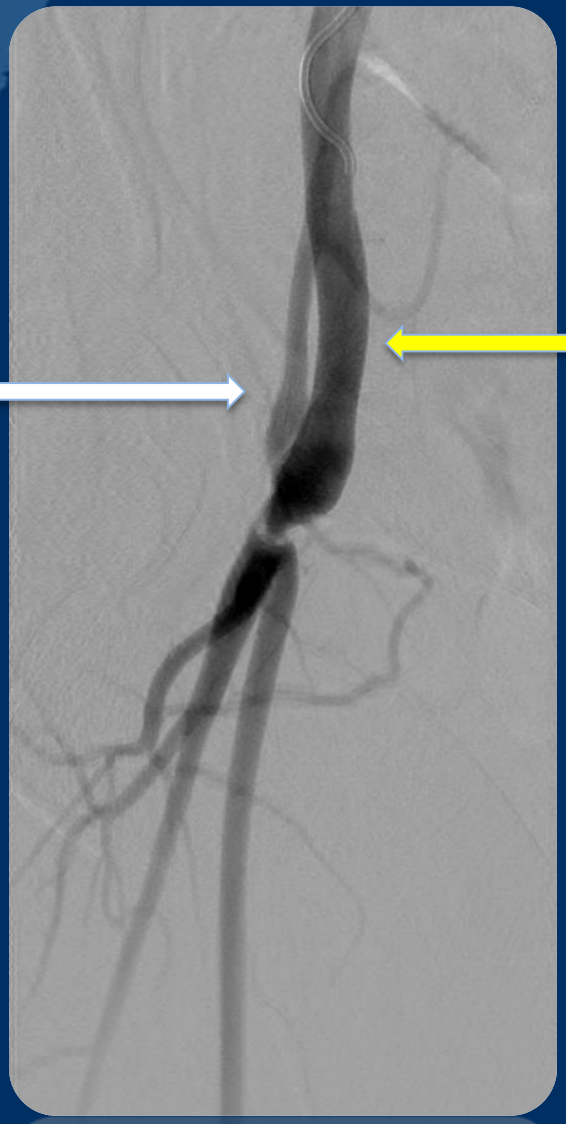
2012 – Recurrent R femoral stenosis and 1-block claudication

* Arterial duplex – PSV 440cm/sec
* ABI 0.80



Right Femoral Angiogram

left groin graft access



Right External Iliac Artery

Right Limb of Aortobifemoral Bypass

Directional Atherectomy

Initial

TurboHawk LX-M

6mm Spider Filter

16 Concentric Passes

6mm x 40mm Final PTA

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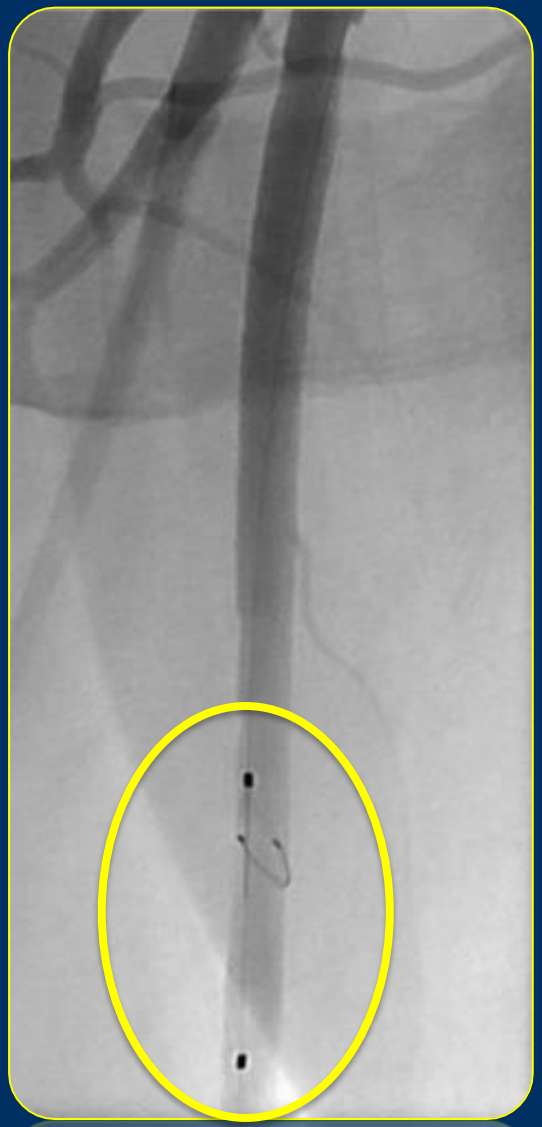

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Final

3-Year Follow-Up

Claudication Resolved

ABI 0.98

Arterial Duplex Velocity
155 cm/sec

38 Month Follow-Up Angiogram

Conclusions

Directional Atherectomy Can Be Used To Emulate Surgical Endarterectomy With Less Impact on Media, Adventitia

Cases Such As These Suggest Such An Approach May Reduce Intimal Hyperplasia

38 Month Follow-Up Angiogram

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