

Percutaneous Reconstruction of Complex Aorto-Iliac Disease

Tips from Imaging to Intervention

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THE UNIVERSITY OF
TOLEDO
HEART AND VASCULAR CENTER

The Answer for This...



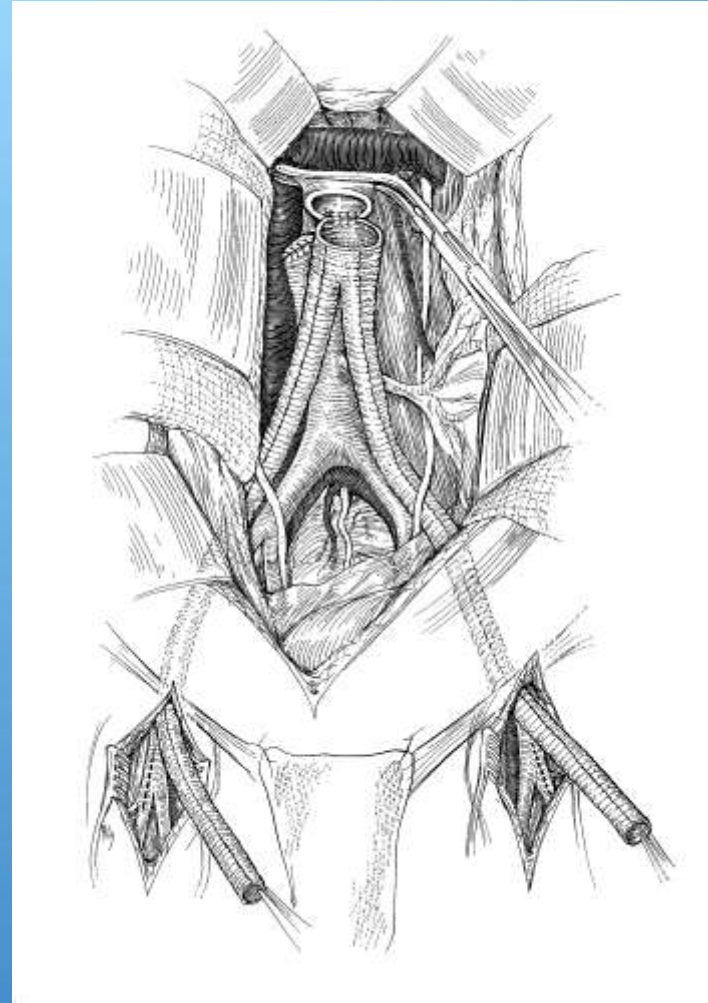
Aortic and Iliac Occlusion

The Answer for This...



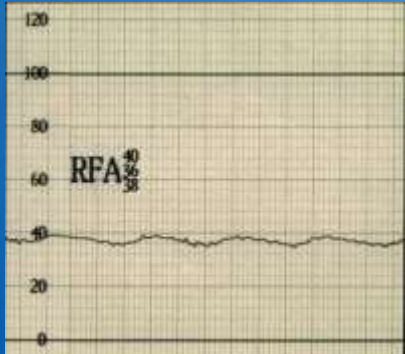
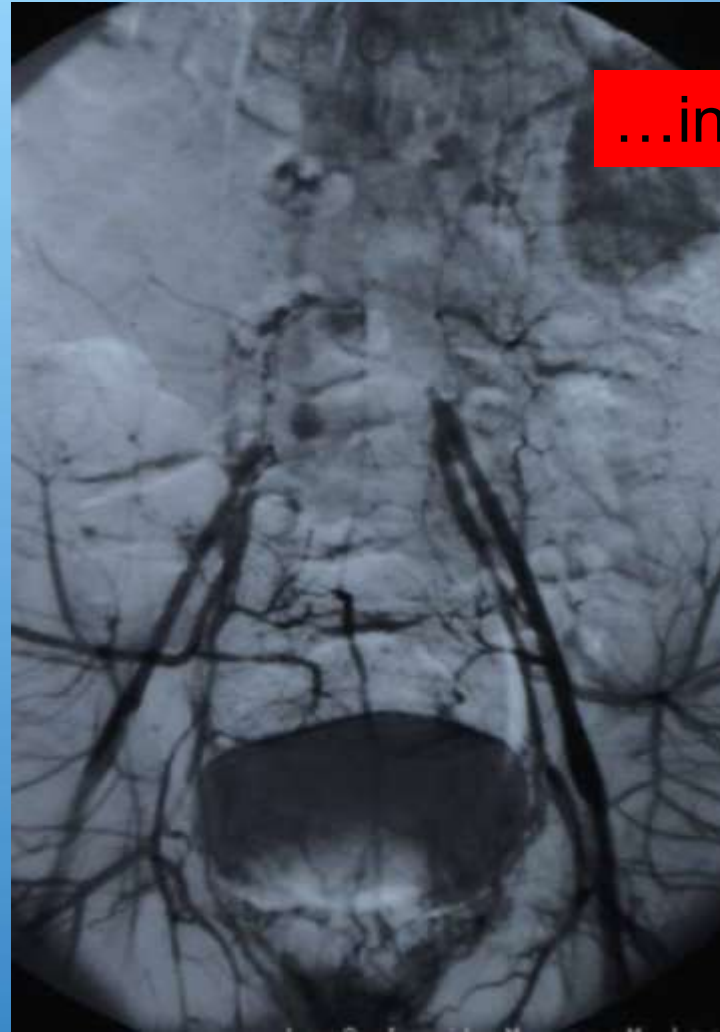
Aortic and Iliac Occlusion

Is **Not** This...



Aorto-bifemoral Graft

47 Year Old Male, Rest Pain, Refused Surgery



After Aortic and Iliac Stents



16 Years Later...

No lifestyle limitation

All 4 pedal pulses palpable

ABI R 1.18 L 1.1

Minimum Requirements

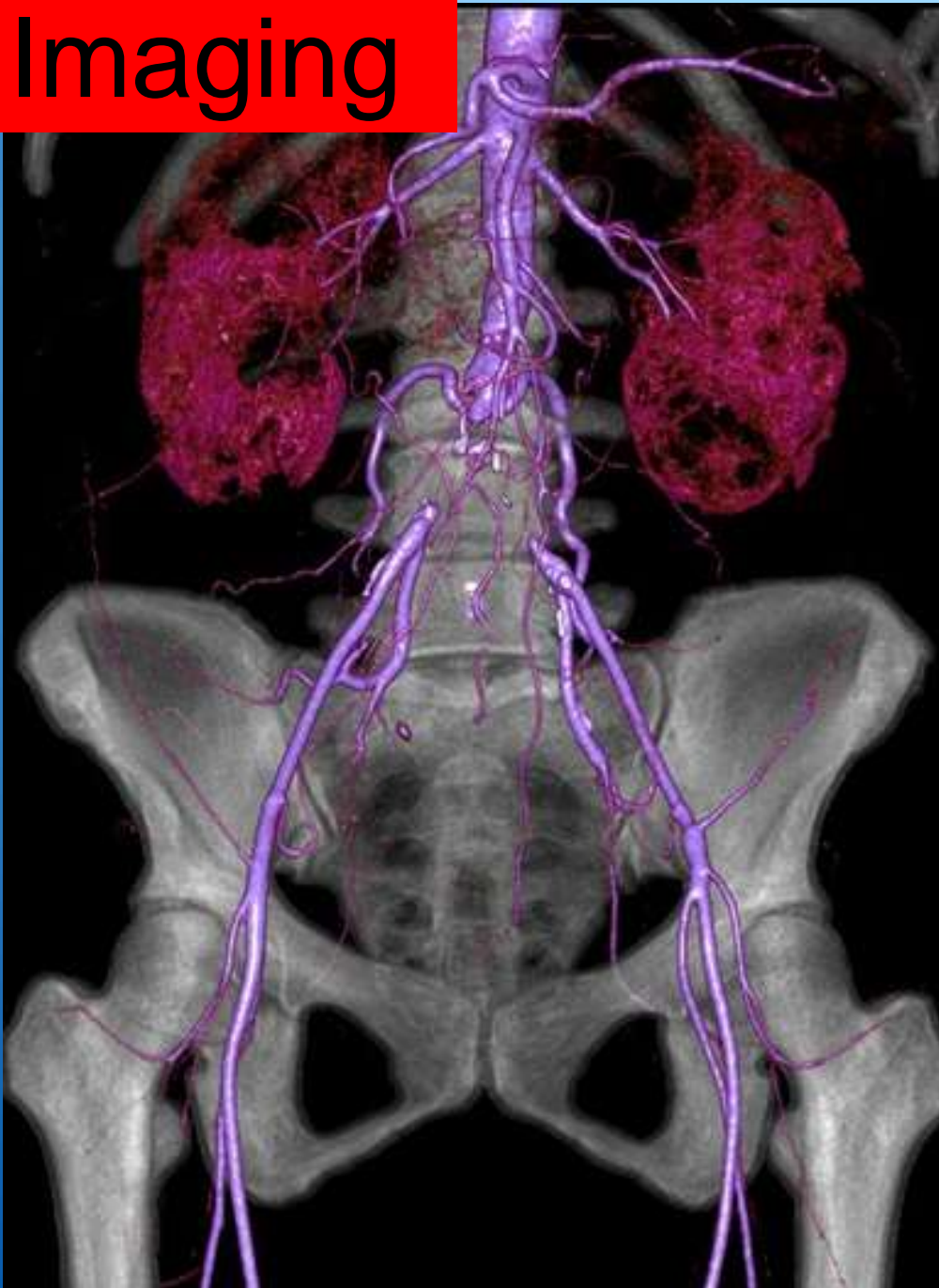
- Patent proximal aorta
- Patent common femoral arteries



DANGER

- Abrupt onset of symptoms
- Heavy calcification
- Excessive tortuosity
- Adjacent renal arteries

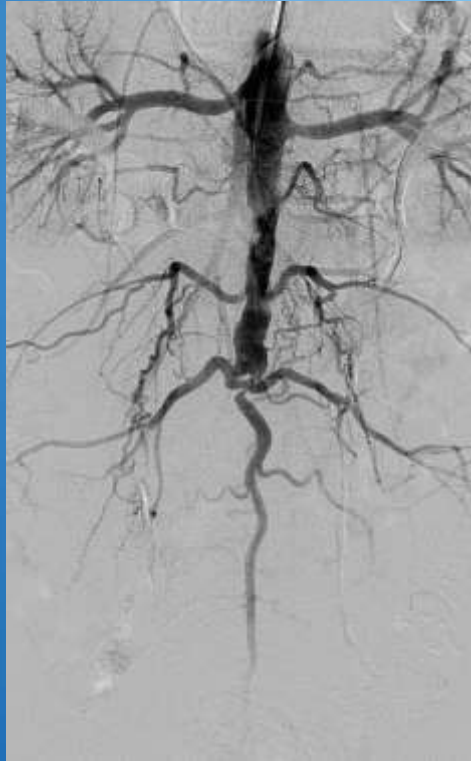
Imaging



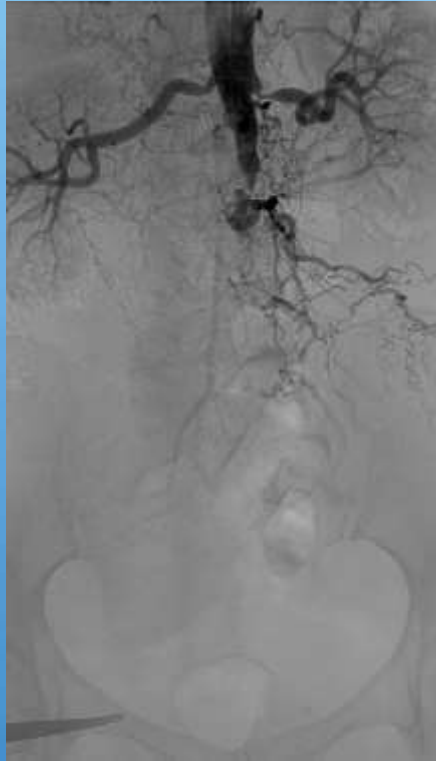
CT Angiography

- Extent of disease
- Adjacent vessels
- Access vessels
- Tortuosity

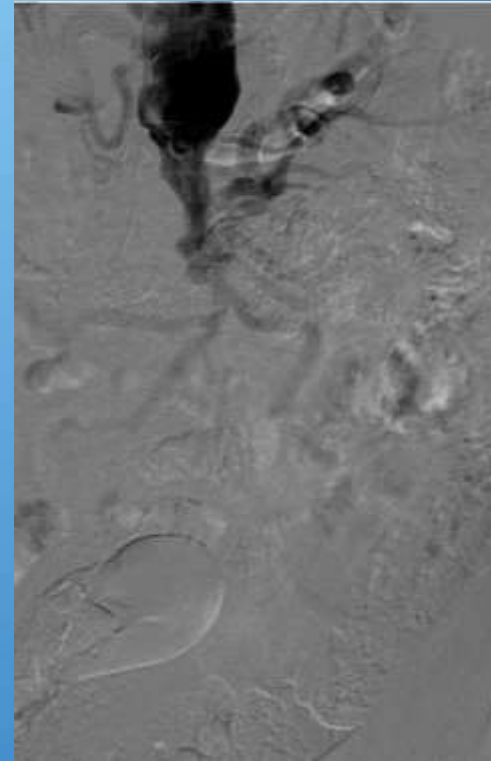
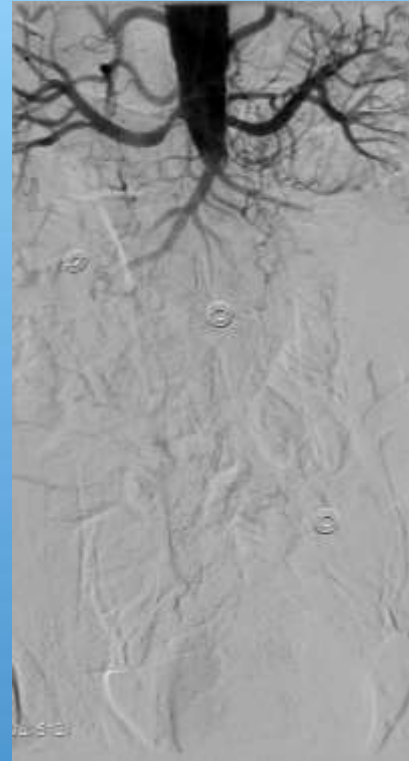
Renal Artery Status



Low Risk



Moderate Risk



Don't Do It !!

Angiography

Start with Radial Access

- Allows for imaging



The Constitution of the United States of America

Radial Access



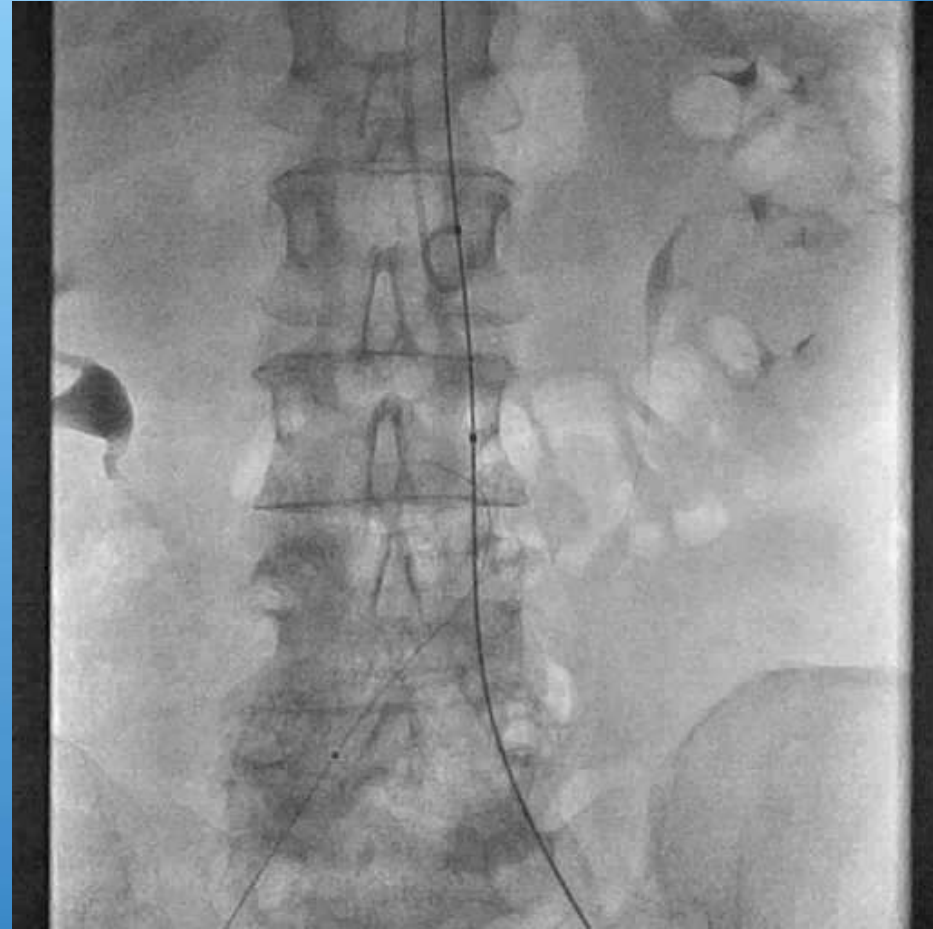
Pulseless Groin Access

- Ultrasound guidance
- Imaging via collateral
- Vessel calcification
- Micropuncture or 4 Fr sheath



Step-By-Step

- Bilateral groin access
- 30 cm sheaths
- Hydrophilic 0.035" wires
- Support catheter
- Aim for pigtail
- Confirm intraluminal location



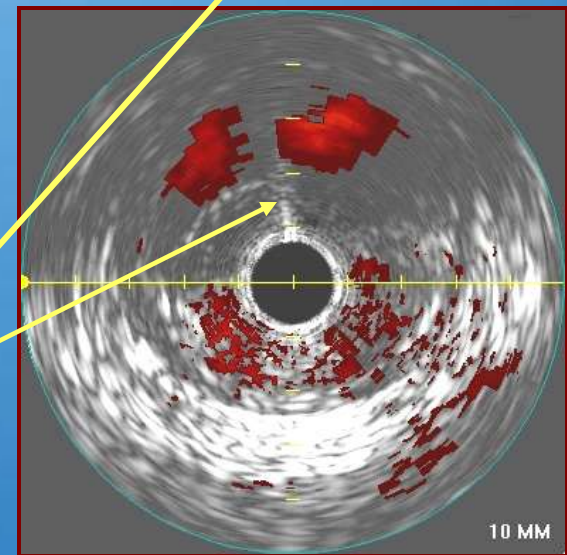
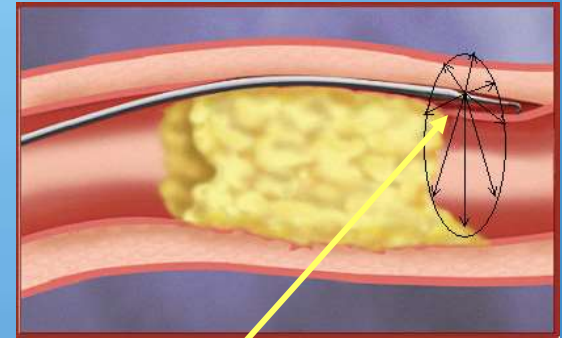
Failure to Enter True Lumen

- Advance wire from above
- Re-entry catheter
- Ultrasound-guided



Failure to Enter True Lumen

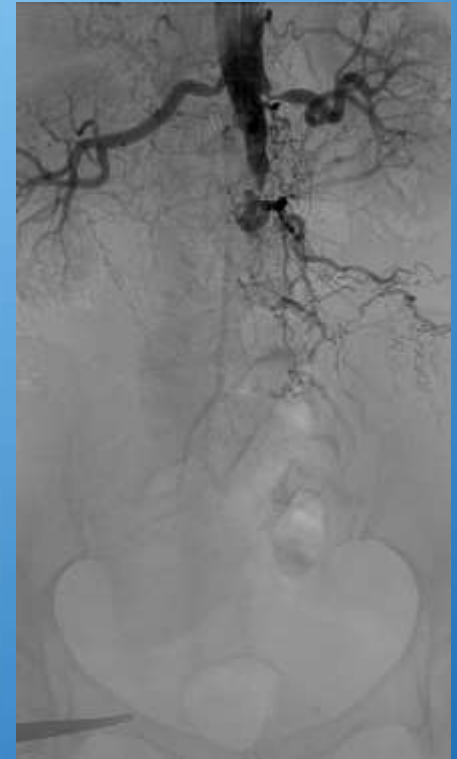
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Next Steps

(When Wires Are In Place)

- Conservative balloon strategy
- Assess the patient
- Deploy aortic stent
 - Balloon-expandable
 - With contralateral wire withdrawn



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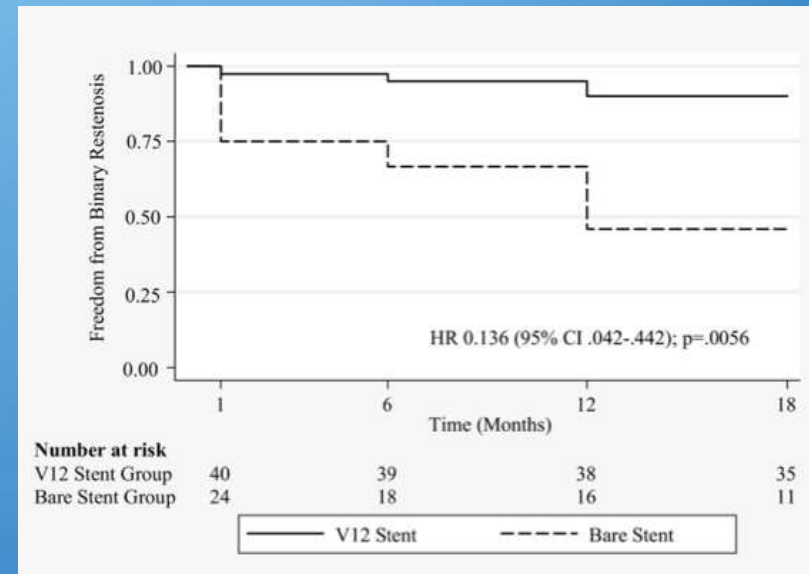
Next Steps

- Re-advance wire into aorta
- Simultaneous common iliac stent placement



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- Simultaneous common iliac stent placement
 - Balloon-expandable
 - COBEST: PTFE advantage

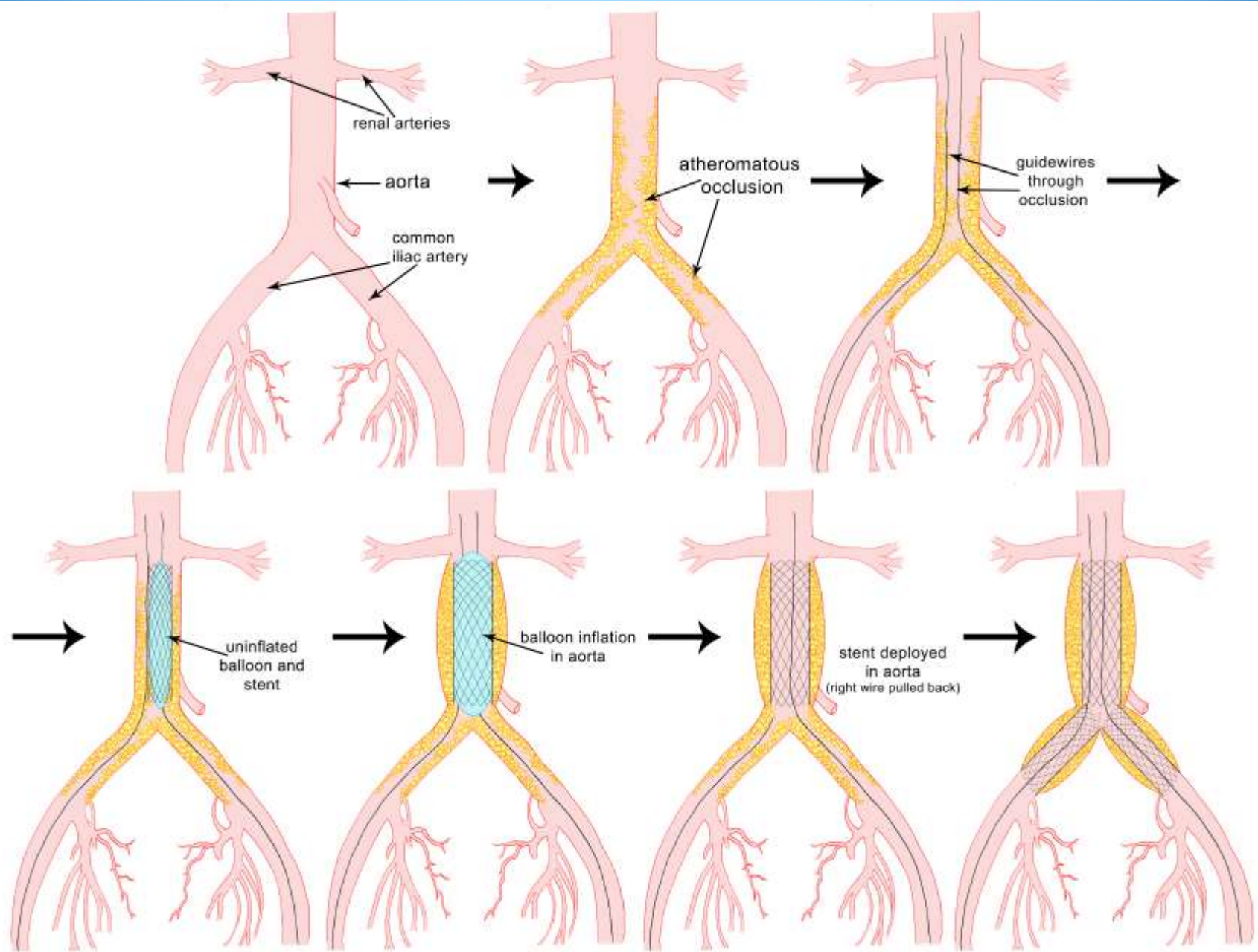


Freedom From Restenosis
TASC C/D

Next Steps

- Re-advance wire into aorta
- Simultaneous common iliac stent placement
 - Balloon-expandable
 - COBEST: PTFE advantage
- Simultaneous deflation
- External iliac strategy





Follow-Up

- Symptoms
- Physical exam
- ABI



Conclusions: Complex Aorto-Iliac Disease

- Percutaneous-first strategy
- Carefully-devised plan
- Appropriate equipment
- Durable results

