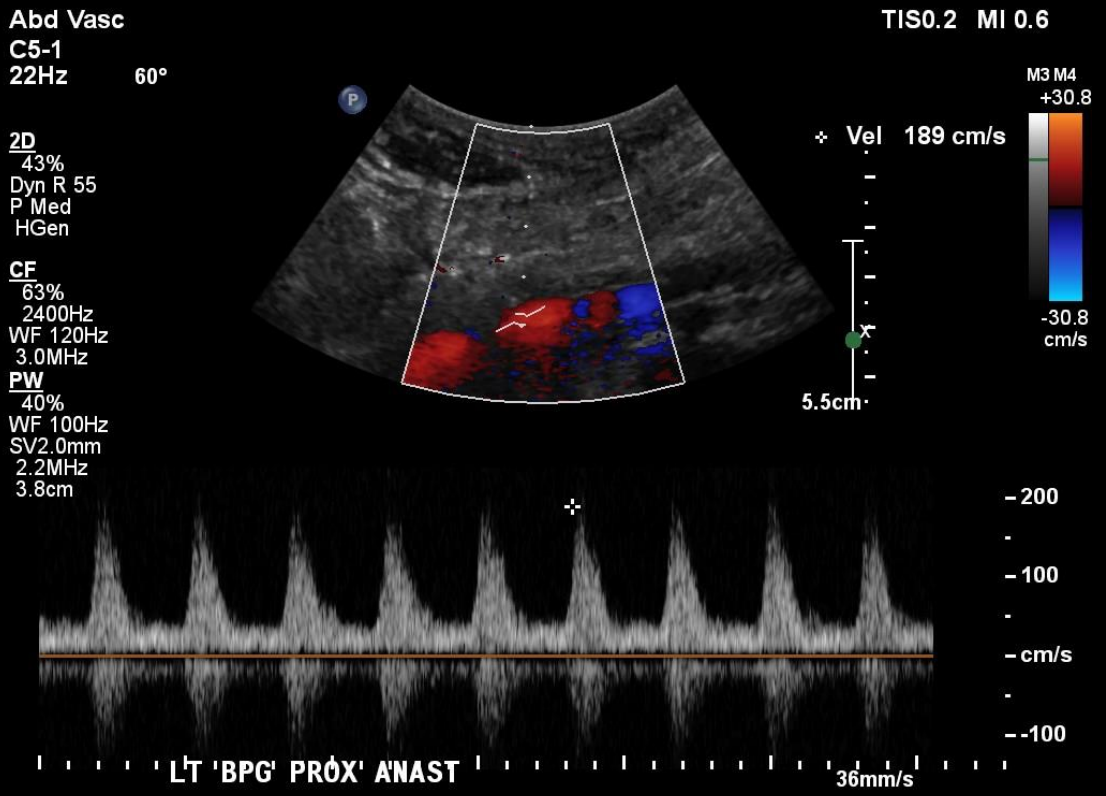
# CAIR Case of the Month

Case Courtesy of Drs. R. Regan and D. Klass
University of British Columbia

# Demographics

- 62 year old male from the Yukon
  - Bilateral short distance claudication
  - Diabetic
  - Smoker
- Right fem-pop bypass April 25, 2018
- Left fem-pop bypass and common iliac stent July 18, 2018

# Ultrasound July 2018




LEFT

CFA: 206cm/sec

Prox Anast: 189cm/sec

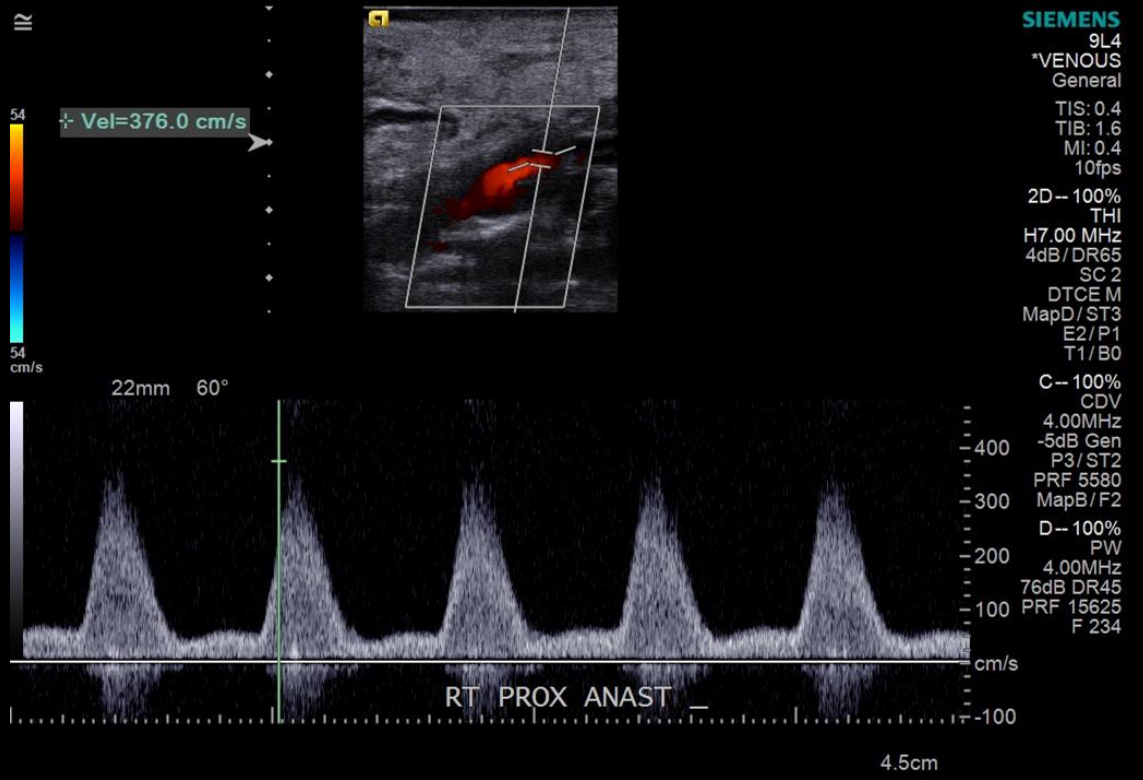
Prox Graft: 118cm/sec

Mid Graft: 87cm/sec

Graft at Knee: 211cm/sec

"No evidence of a focal stenosis”

# Ultrasound July 2018




RIGHT

CFA: 171cm/sec

Prox Anast: 376cm/sec

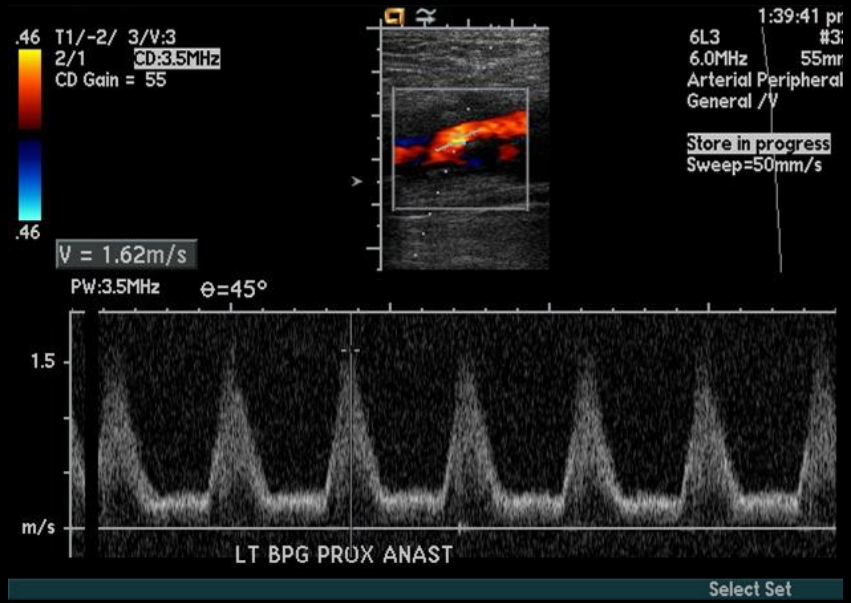
Prox Graft: 114cm/sec

Mid Graft: 115cm/sec

Graft at Knee: 62cm/sec

“No hemodynamically significant stenosis”

# Ultrasound September 2018




LEFT

CFA: 123cm/sec

Prox Anast: 165cm/sec

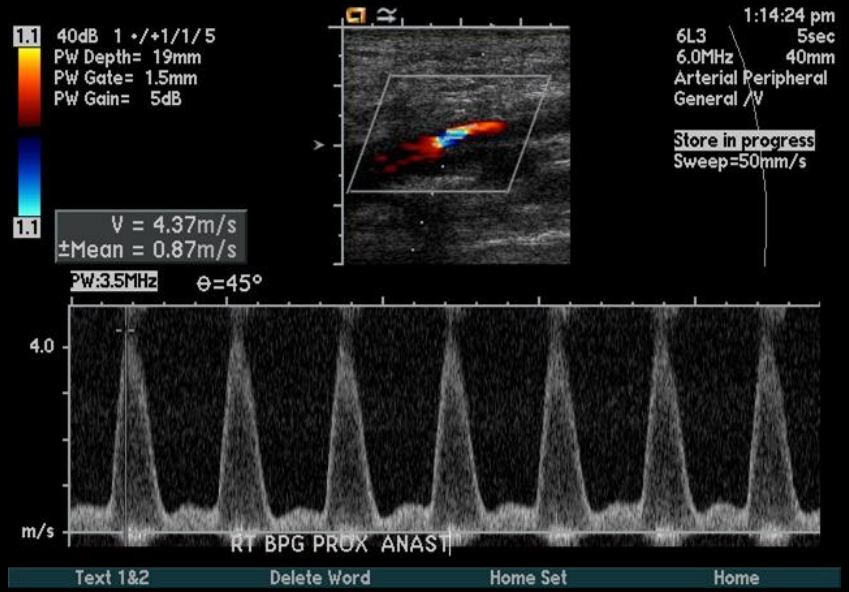
Prox Graft: 163cm/sec

Mid Graft: 161cm/sec

Graft at Knee: 442cm/sec

Distal to anastomosis: 55 cm/sec

# Ultrasound September 2018




RIGHT

CFA: 127cm/sec, previously 171 cm/sec

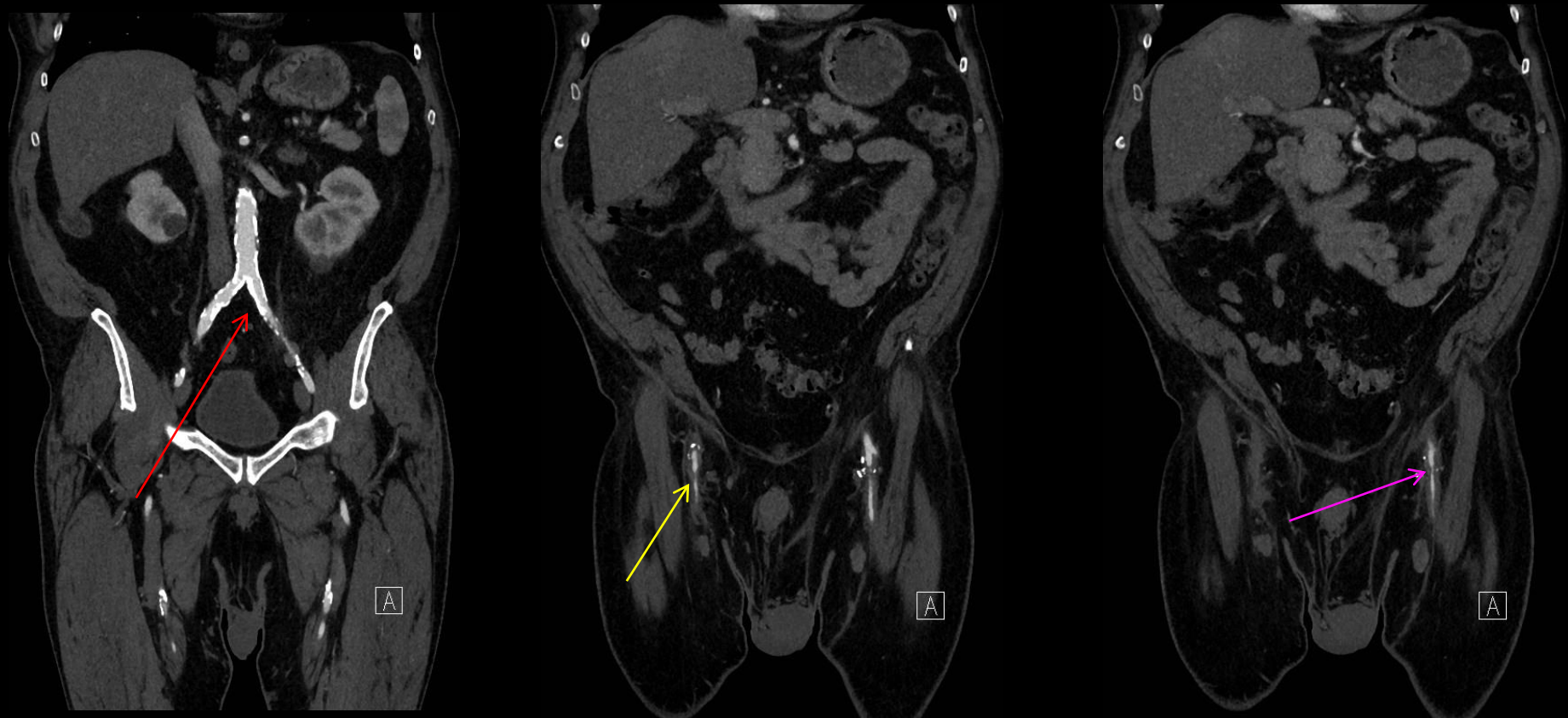
Prox Anast: 468cm/sec, previously 376 cm/sec

Prox Graft: 107cm/sec

Mid Graft: 95cm/sec

Graft at Knee: 66cm/sec

# CTA February 2019



# 3D Reconstructions

# Bilateral Fem-Pop Bypass

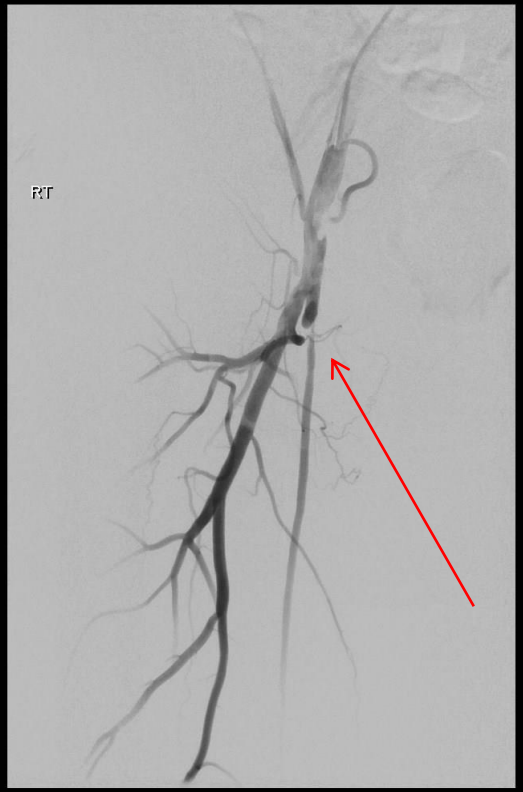
- Radial Approach
  - 5 Fr Radial Sheath
  - 7800 Units of Heparin (weight-based)
  - 2.6 mg Verapamil
  - 200 mcg Nitroglycerin

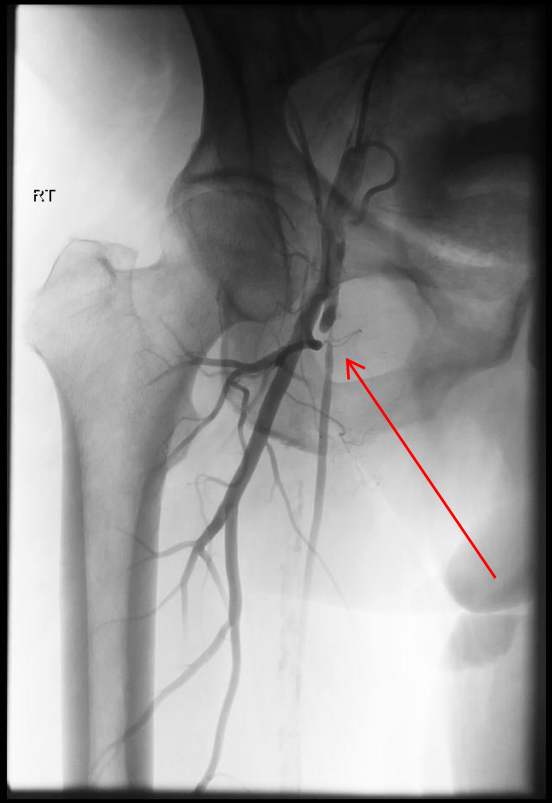
- 4 Fr 150 cm angled glidecath → Rosen into abdominal aorta

- "Mother-child" technique of catheter inside guiding catheter
  - 6 Fr 125 cm guiding catheter MPA (Mother)
    - Balloon trackability through the arch
  - 4 Fr 150 cm angled glidecath inside the guiding catheter (Child)

- Right common iliac artery

# Initial Right Angiogram



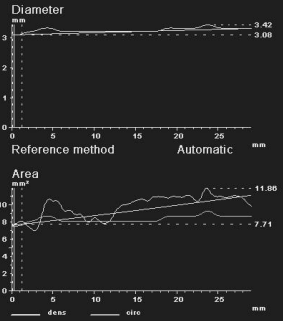



# Right Fem- Pop Bypass

- V14
- 0.017” Crossing Catheter
- Over the wire Cardiology balloon
  - 4.0 mm x 15 mm
  - 4.5 mm x 21 mm
  - Length
  - Flexibility

# Right Fem- Pop Bypass

Automatic Reference Analysis




| Stenosis | (%) |
|---|---|
| %Diameter | 1 |
| %Area Circ | 2 |
| %Area Dens | -1 |

Obstruction Segment

| | Diameter (mm) | Area Circ (mm²) | Area Dens (mm²) |
|---|---|---|---|
| Lesion | 3.08 | 7.47 | 7.71 |
| Ref | 3.11 | 7.61 | 7.61 |
| Mean | 3.10 | 7.53 | 7.89 |

| | |
|---|---|
| Series Descr | CARE Body 3 |
| Frame Number | 12 |
| Rot / Ang | -15.70 ; 0.40 ° |
| Segmentname | |
| Trial Name | |
| Intervention | |
| Cal Factor | 0.2287 mm/pix |
| Cal Object | 0.00 mm SiemensCal (TO... |

| | | |
|---|---|---|
| Prox D | 3.09 | mm |
| Dist D | 3.13 | mm |
| Pos Prox | 0.11 | mm |
| Obstruction Length | 1.14 | mm |
| Obstruction Volume | 9.48 | mm³ |
| Plaque Area | 0.04 | mm² |
| Plaque Volume | 0.00 | mm² |
| Plaque Symmetry | 0.00 | |

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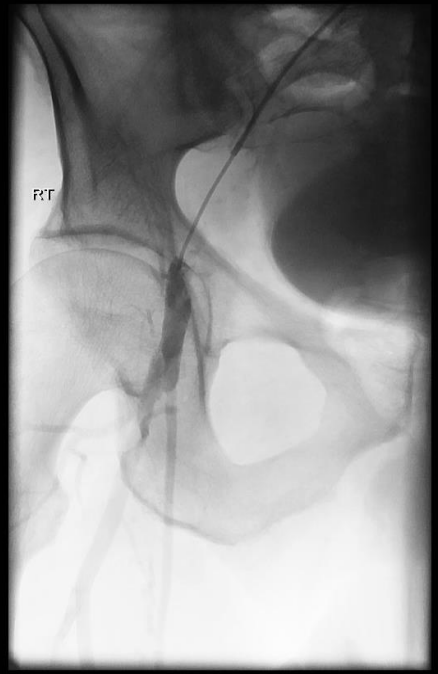
# Right Fem Pop Bypass

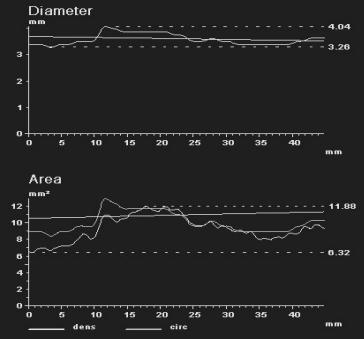



# Left Fem-Pop Bypass


- 4 Fr catheter directed to left external iliac artery
- V14
- Over the wire peripheral vascular balloons
  - 5 mm x 20 mm
  - 5.0 mm x 80 mm
- 2000 U heparin at 70 minutes

# Left Fem- Pop Bypass

Total Analyzed Segment




| | |
|---|---|
| FOX Ronald A | |
| ID | 04304448 |
| Sex | Male |
| Birth Date | 3/9/1957 |
| Accession Number | 13343531 |
| Study ID | 13343531 |
| Physician | DR. KLASS |
| Hospital | VGH |
| Acquisition Date | 2/5/2019 |
| Series Descr | CARE Body 3 |
| Frame Number | 11 |
| Rot / Ang | 43.40 ; -1.40 ° |
| Segmentname | |
| Trial Name | |
| Intervention | |
| Cal Factor | 0.2404 mm/pix |
| Cal Object | 0.00 mm SiemensCal (TO... |

| | Diameter (mm) | Area Circ (mm²) | Area Dens (mm²) |
|---|---|---|---|
| Min | 3.26 | 8.35 | 6.32 |
| Max | 4.04 | 12.82 | 11.88 |
| Mean | 3.56 | 9.99 | 9.23 |
| Sdev | 0.21 | 1.17 | 1.52 |

| | |
|---|---|
| Segment Length | 44.81 mm |
| Contour Corrected | 0.00% Left<br>0.00% Right<br>0.00% Total |

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# Left Fem-Pop Bypass

# Post Procedure

- Radial band  and ulnar compression for hemostasis
  - 40 minute deflation protocol
- Fluoroscopy time 13:25
- Dose 893.7 mGy
- 4 hours monitoring
- Discharge home