Acute Aortic Dissection Resulting in Claudication

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- 68 years old female with history of T2DM, HTN and family history of aortic dissection.

**Symptoms**
- Severe **back** and **right arm, groin and leg** pain.
- No chest or abdominal pain.

**Physical examination**
- Marked distress.
- BP: R - 158/74
  L - 147/68
- HR – 71
- **Right leg weakness.**
- No abdominal tenderness.

**Lab result**
- Trop – normal
- Lactate – 2 mmol/L (Normal range 0.5 - 1.6 mmol/L)
- D-dimer – NA

**ECG** – nonspecific changes.
CT- Angio

- Stanford type A dissection.
- Extensive thoracic and abdominal aortic dissection that originates in the **ascending aorta** and extends through the aortic arch, descending thoracic aorta, the abdominal aorta and into the **right external iliac artery**.

The patient was transferred by helicopter to our facility.
UCHealth - Hospital course

Aortic hemiarch replacement

- Follow up - CT Angio C/A/P
  - Stable ascending aortic repair with some hematoma/seroma
  - Persistent aortic dissection flap beginning distal to the left subclavian artery takeoff and extending distally to the distal right external iliac artery.

- POD 14 - Discharged in a good condition with recommendations for cardiac rehabilitation and multidisciplinary follow up with cardiothoracic surgery and vascular medicine.
## Multidisciplinary outpatient clinic follow up

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| 1 month | Good overall recovery.  
"Her right leg gets heavy and weak with exertion, which may represent claudication". | Right ABI – 0.69  
TBI – 0.29  
Ct Angio – Stable findings. |
| 3 - 6 months | "She has noted worsening of her right leg function with short distance claudication and impaired functional status." | Us Duplex RLE- Monophasic low velocities at REIA and distally.  
CTA - A focal near occlusion of the right external iliac at its origin off the common. |
Common and External Iliac Stenting

- Right common and external iliac stenting of right common iliac artery and right external iliac artery.
- [Overlapping covered, and non-covered balloon expandable stent]

Post procedure:
- Improvement to right thigh, hip and calf claudication.
- 2 weeks follow up:
  Right ABI - 0.88
  TBI - 0.51.
1 month post intervention

Recurrent buttock symptoms at exertion.

Given the patient symptoms and imaging results, a **second intervention** was planned.

**Duplex US** - Elevated velocity at the proximal aspect of the stent.

**CT Angio** - Proximal aspect of the CIA stent is **deformed and appears crushed**, likely from the dissection flap.
Second Peripheral Vascular Intervention

Second stent at the proximal right common iliac artery. [Covered, balloon expendable.]
One year post the 2nd peripheral intervention

- "The patient has no leg discomfort with walking."
- ABI is improved, stent is patent by duplex.
- Close multidisciplinary clinical and imaging follow up is planned.
Thank you
Summary

• A 68 year-old female with acute type A dissection, extending to the right external iliac artery.

• After a hemiarch replacement, claudication developed and was treated with right common iliac stenting.

• Close multidisciplinary clinical and imaging follow up is planned.