GIANT CELL ARTERITIS

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PATIENT BACKGROUND

- 79 year old Caucasian male
- Sent *STAT* by PCP
  - “No BP in left arm”
- Patient complains of tiredness in arm
  - Especially when drying off after a shower
  - Previously “tiredness” would resolve after 1-2 mins, now takes 5-10 minutes to resolve
  - “Messing with his golf game”
Right Brachial A MID

- R Mid Brach A -76 cm/s
L Mid SCL A -96 cm/s
Left Subclavian A Mid
3.6 sec
L Dist SCL A 118 cm/s
L Ax A -108 cm/s

Left Axillary A
L Prox Brach A 372 cm/s

Left Brachial A PROX
L Prox Brach A
PSV -206 cm/s
L Mid Brach A 18 cm/s
L Dist Rad A 16 cm/s

Left Radial A Distal 3.6sec
L Prox Ulnar A 10 cm/s
L Mid Ulnar A 8 cm/s
L Dist Ulnar A 12 cm/s
PATIENT SET UP WITH A VASCULAR SURGEON FOR FOLLOW UP.

VASCULAR SURGEON ORDERED CTA OF LEFT ARM AND BLOOD WORK TO CHECK FOR INFLAMMATORY MARKERS.
CTA LEFT ARM
INFLAMMATORY MARKERS ONLY SLIGHTLY ELEVATED

TYPICALLY ARTERITIS CAUSES HIGHLY ELEVATED MARKERS

VASCULAR SURGEON ORDERS TEMPORAL ARTERY ULTRASOUND
TEMPORAL ARTERY US
DIAGNOSING

- Patient appears to have thickened arterial walls and diminished flow per US and CTA
- Blood work showed mildly elevated inflammatory markers – arteritis typically shows extremely elevated inflammatory markers
- Temporal artery US showed thickened walls
- Temporal artery biopsy showed active temporal arteritis

- Final diagnosis is Giant Cell Arteritis
TREATMENT

- Treatment team: Vascular Surgeon, Rheumatologist, PCP
- Patient is Type II Diabetic
  - Sugars sensitive to steroids
- Treatment long term high dose of Prednisone
- Allow rheumatology to monitor and adjust steroid treatment
- Follow up with vascular every 6 months or as needed
- Vascular US performed 6/6/17 with little change
OFFICE VISIT 2/9/18

- No vascular study performed
- Right brachial BP 138/84 mmHg
- Left brachial BP 80/50 mmHg
- Patient has no complaints of exercise induced symptomology
- Patient is almost completely off steroids

- Follow up every 6 months or as needed
  - No vascular imaging warranted unless symptoms worsened
GIANT CELL ARTERITIS

- Etiology unknown but involves immunologic condition
- Associated with media of cell wall becoming infiltrated with a variety of white blood cells
- Muscular and elastic portions of wall are eroded and fibrosis develops
GIANT CELL ARTERITIS - INCIDENCE

- Average age on onset is 70 years old
- Rarely occurs in people less than 50 years old
- More common in Caucasians and females than males or other races.
GIANT CELL ARTERITIS – S&S

Signs and Symptoms
• Asymmetrical upper extremity blood pressures
• Temporal headaches
• Tenderness over temporal artery
• Decreased pulse
• Aching/stiffness in neck
• Jaw claudication
• Visual disturbances
GIANT CELL ARTERITIS - DIAGNOSING

- Ultrasound
  - “halo” sign
  - Thickened arterial walls
- CTA
- Angiography
- MRI
- MRA

- Blood work
  - Inflammatory markers
  - Erythrocyte sedimentation rate
  - C-reactive protein
- Biopsy
  - “gold standard” for diagnosing
  - Shows mononuclear cells infiltrating the area around the elastic lamina within the media of the cell wall.
GIANT CELL ARTERITIS - TREATMENT

• Medical Treatment
  • Aspirin therapy
  • Corticosteroids

• Surgical Treatment
  • Biopsy
  • Bypass

• Endovascular Treatment
  • Angioplasty
  • Stenting
REFERENCES