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# Bilateral Popliteal Artery Entrapment Syndrome (PAES) in a 4-Year-Old Child with Cerebral Palsy

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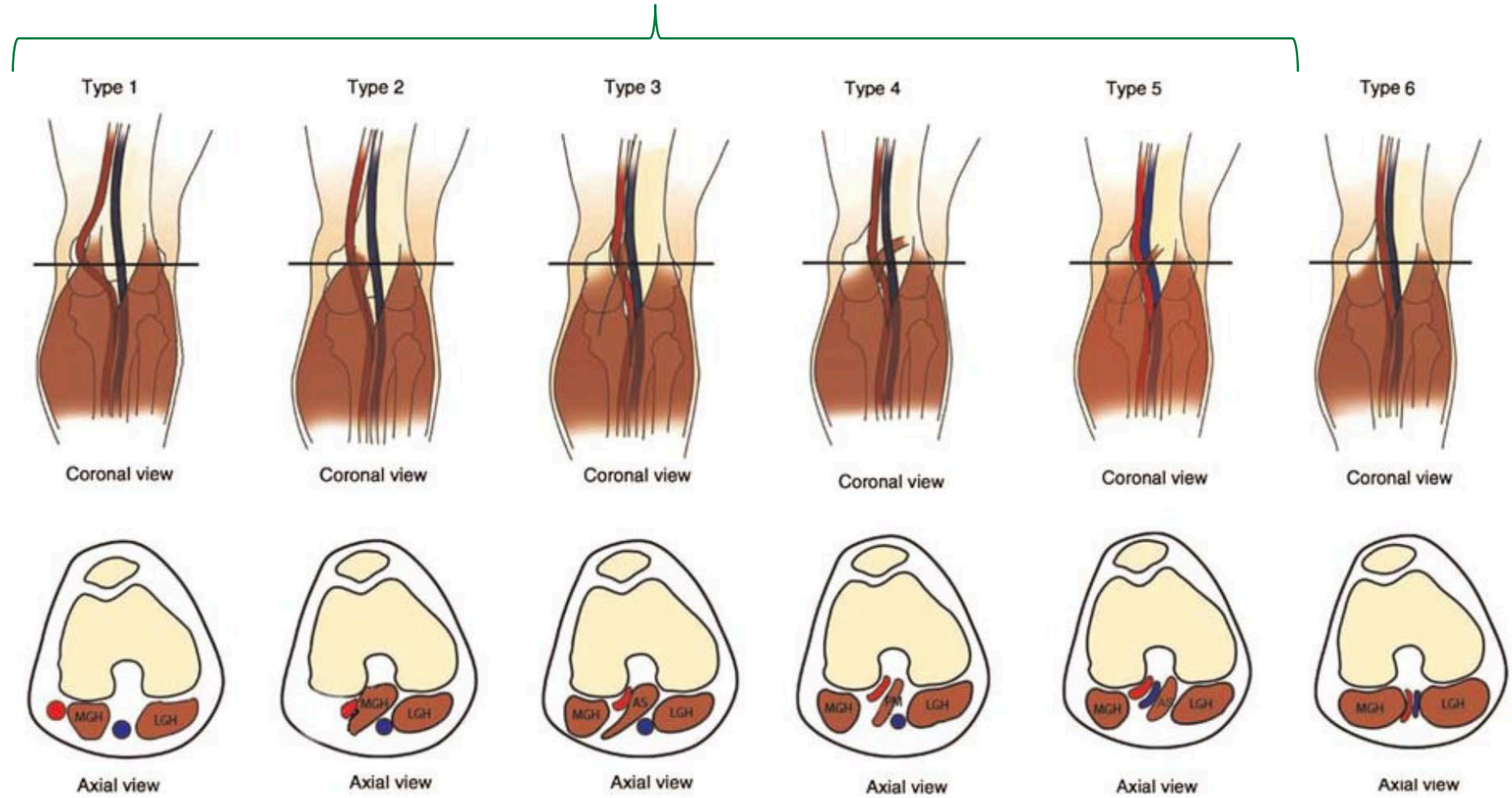
# Disclosures

We have no relevant financial disclosures

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# Introduction



# Aim

Expected PAES population:



Misdiagnosed PAES population:



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# Case Presentation

- 4-year-old female with history of intrauterine R MCA stroke, triplegic spastic cerebral palsy, factor V Leiden, chronic thrombosis of L saphenous vein
- 1.5-year history of difficulty ambulating → constant plantar flexion
- Exacerbated when wearing leg straightening braces → pale, cool, lower extremities with poor wound healing

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## Imaging (4/21): Magnetic Resonance Angiography



High-grade stenosis of the R popliteal artery with diminished distal flow to ATA, PTA, and peroneal artery, with no mass or abnormality to suggest a compressive process.

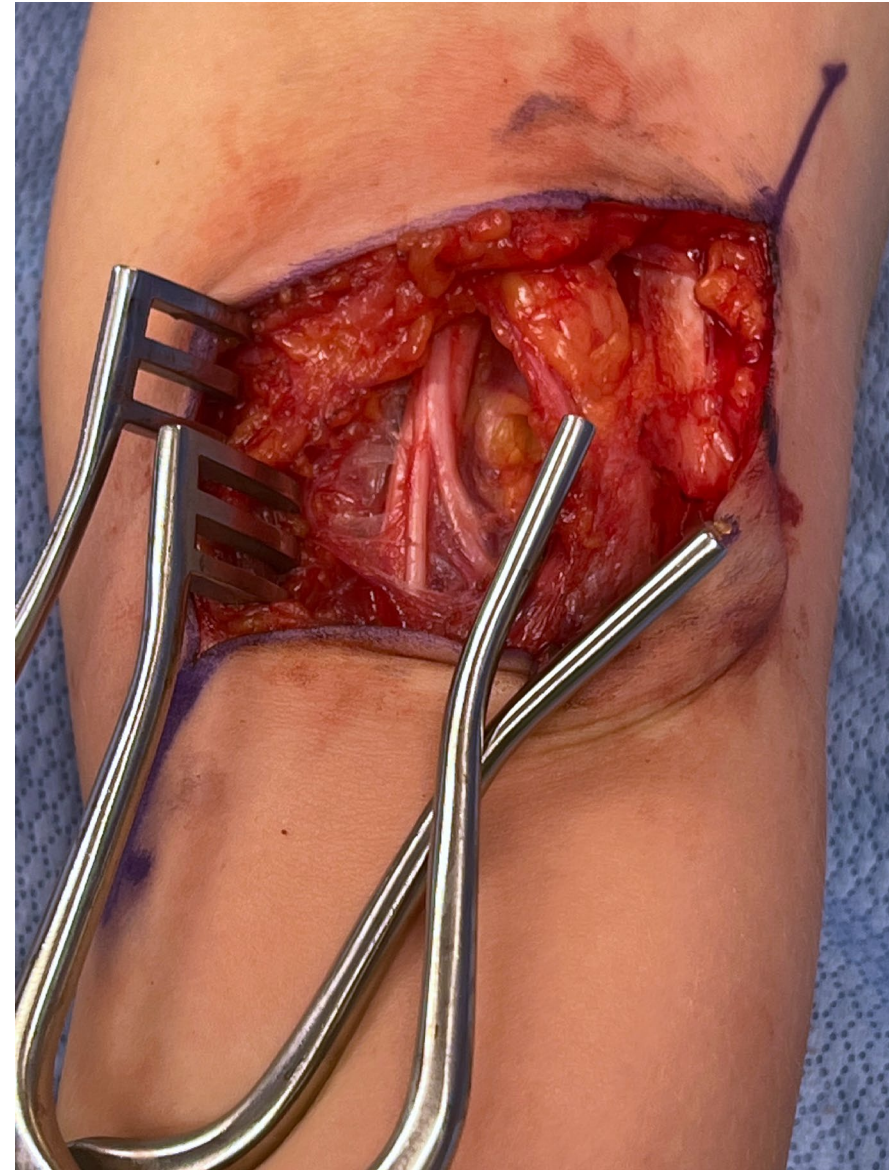
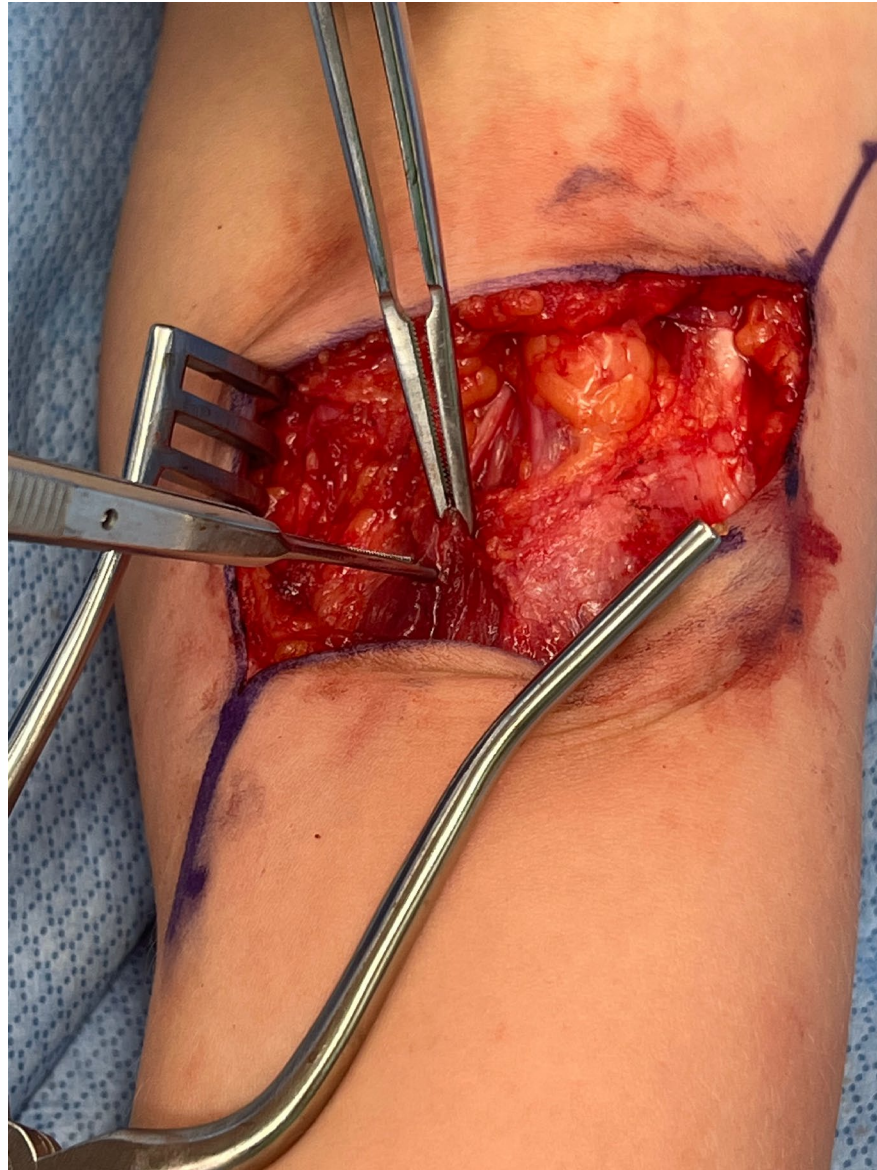
No apparent stenosis of the L popliteal artery.

# Imaging (7/21): Dynamic Arterial Doppler Ultrasound

- Due to ongoing symptoms, follow up US was done
- Significant decrease in peak systolic velocity in R distal popliteal artery up to 17.9 cm/s when extended compared to 54 cm/s in flexion
- Near complete compression of R popliteal artery on hyperextension, suggestive of external compressive process
- Similar findings, though less prominent, in the left lower extremity



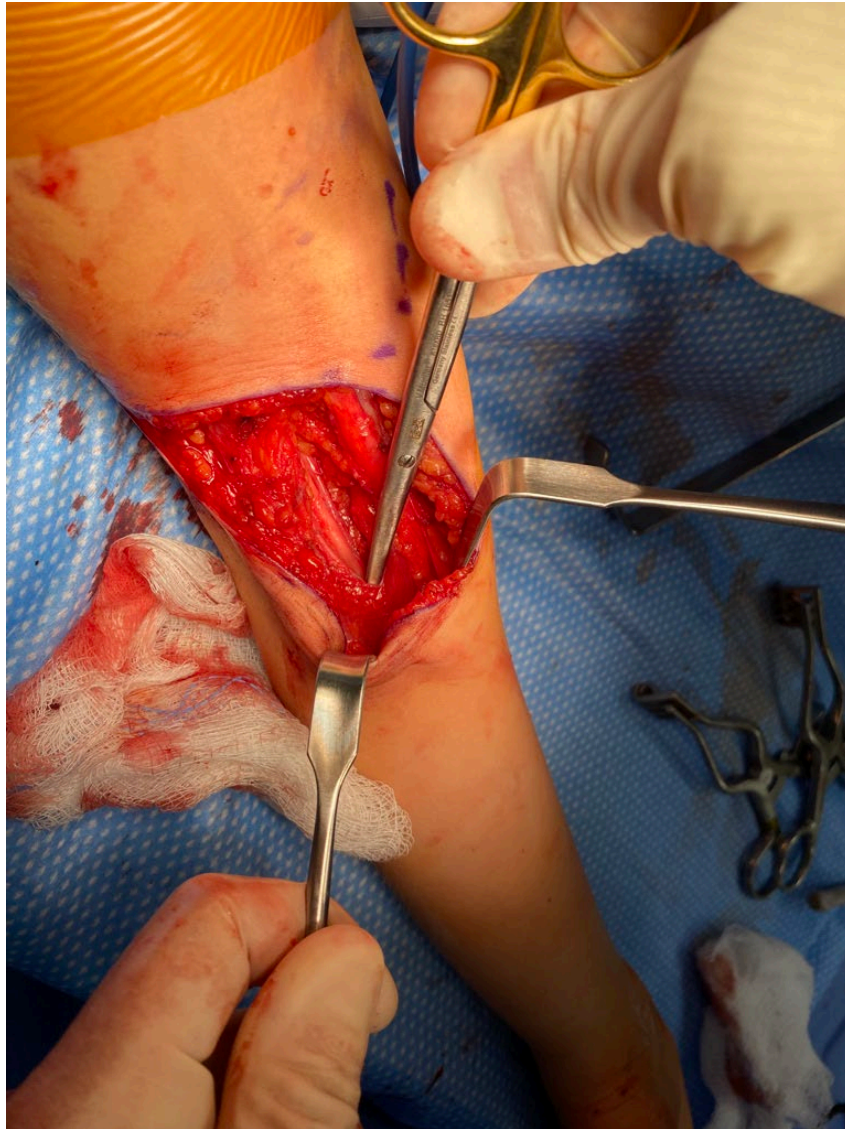
# RLE Popliteal Exploration





# LLE Popliteal Exploration (2 mo later)

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# Post-Operative Course

- Able to wear lower extremity straightening braces all day
- Able to stand with orthotic braces
- Improved wound healing

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# Conclusions

- Rare diagnosis in an unexpected population
- Multiple imaging modalities and high suspicion required
- Operative treatment may be curative



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- Chad M. Thorson, MD MSPH



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