



PACIFIC NORTHWEST

ENDOVASCULAR

C O N F E R E N C E

[PNEC-SEATTLE.ORG](http://PNEC-SEATTLE.ORG)

# DISCLOSURE

## Anne Moore, BSN, RVT

- No relevant financial relationship reported

# Usefulness of Ultrasound in Stroke

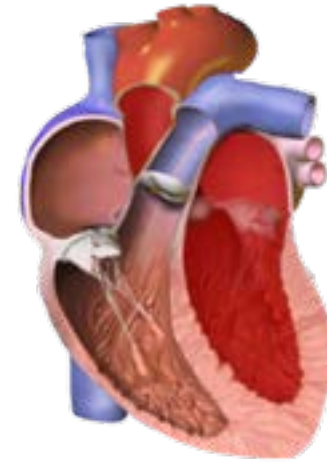
Anne Moore BSN, RVT

Supervisor Cerebrovascular  
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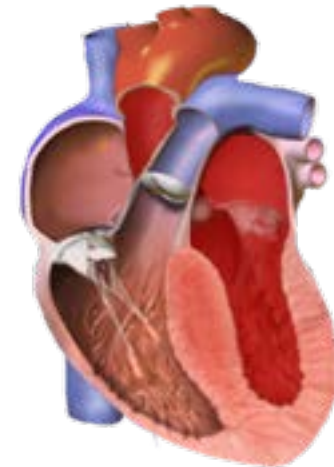
Harborview Medical Center

# Case Study

- 61 year old female with hypertrophic cardiomyopathy
- prior history of V-fib arrest



Normal

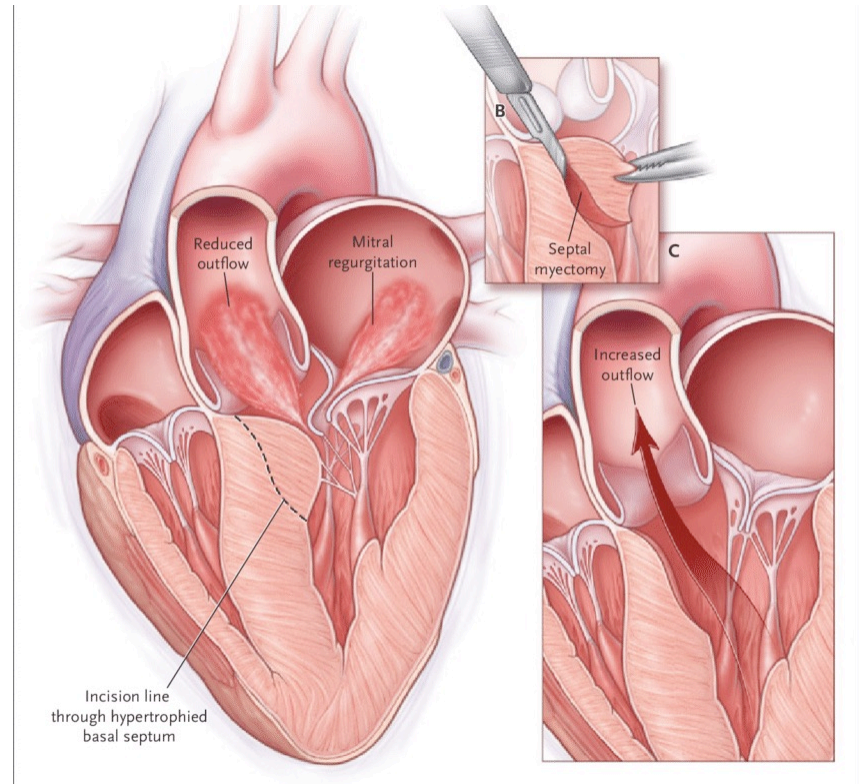


Hypertrophic

By Npatchett at English Wikipedia

# Case Study

- Status post septal myectomy with abandoned epicardial pacer wire over 10 years ago
- Permanent atrial fibrillation-Dabigatran



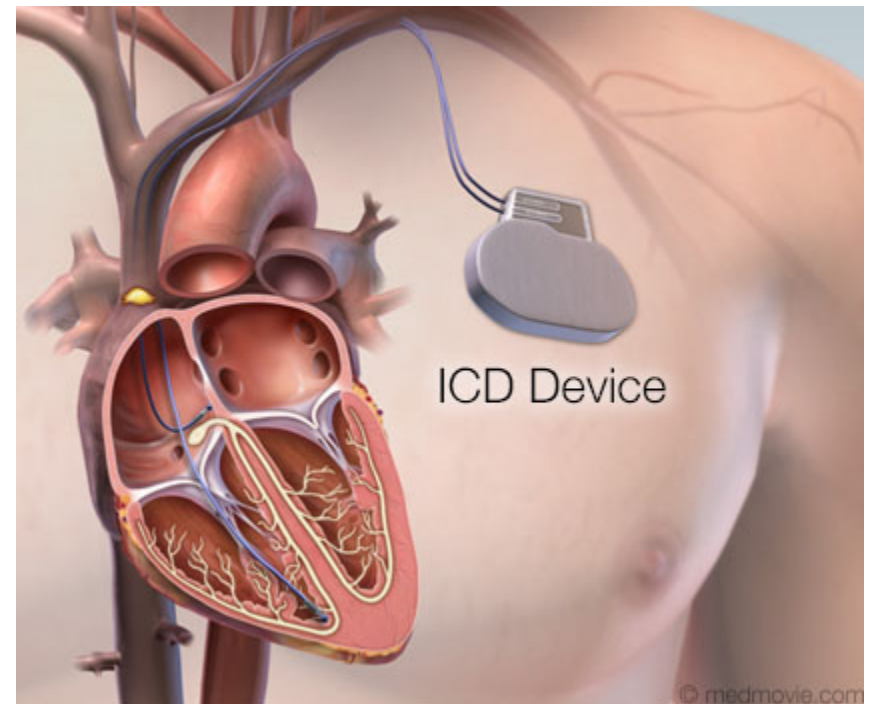
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# Case Study

- While carrying her bags into a friends house to stay the night, her husband heard a loud thud...
- She was found down and unresponsive
- Husband began CPR
- Medics arrived, defib X1
- Admitted to UWMC

# Case Study

- Echo 36% left ventricular systolic function
- ICD, implantable cardioverter defibrillator, to prevent SCD
- Dabigatran was held 4 days for ICD placement and
- Restarted on discharge



# Case Study

- The evening she went home, episode of aphasia
- When the medics arrived she was at baseline
- She did not want to return to hospital



# Case Study

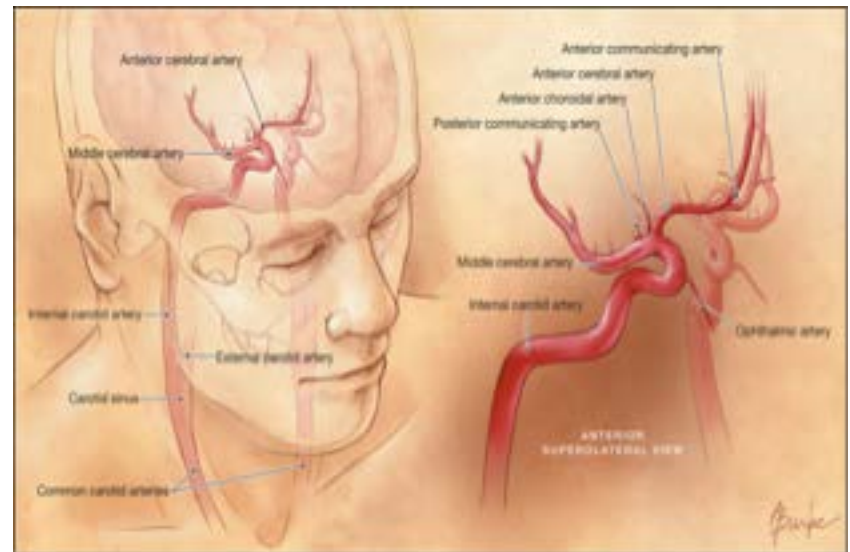
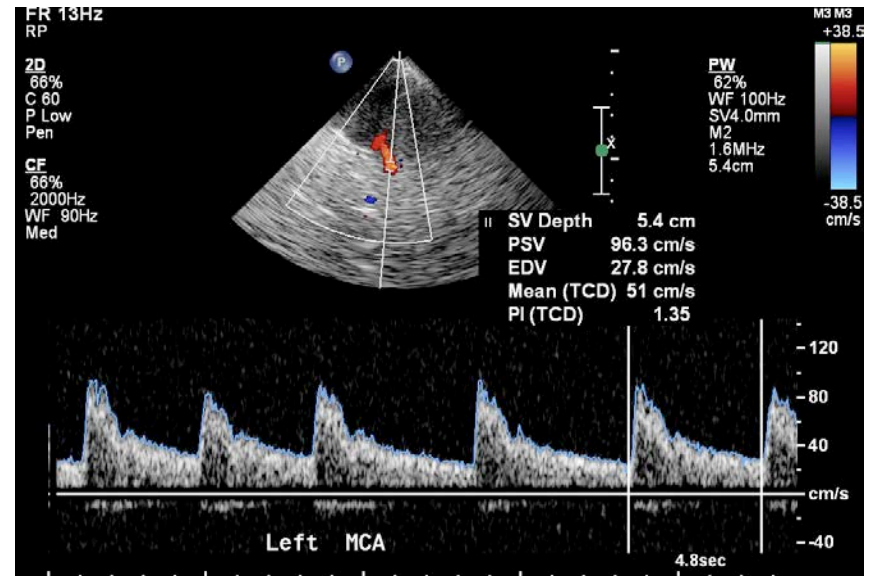
- Following morning, profound aphasia and husband brought her to HMC ED
- Stroke code initiated
- CTA showed LMCA, M 2-3 branch occlusion thrombus in LICA
- I/V Heparin begun



# Limited TCD

B/P 115/63

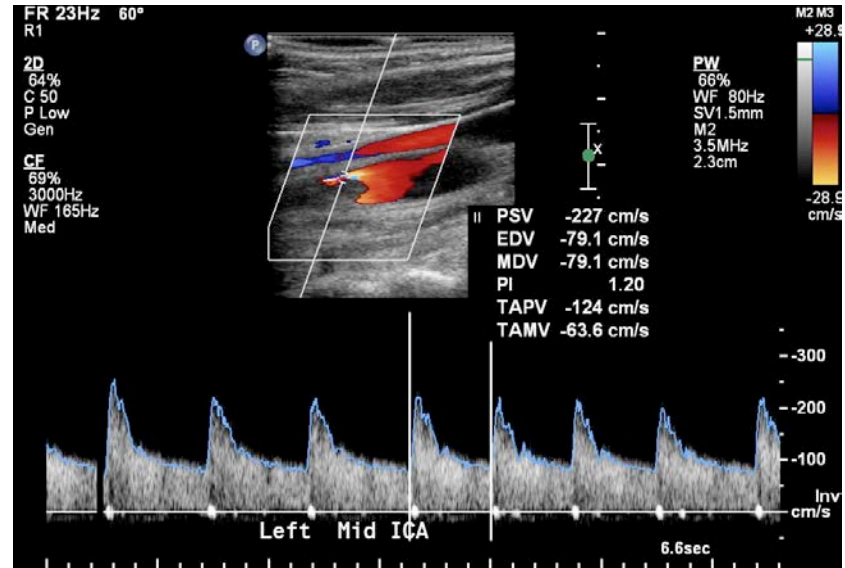
- MCA Left: 40 mm, 42 cm/s.
- MCA Left: 44 mm, 43 cm/s.
- MCA Left: 50 mm, 45 cm/s.
- MCA Left: 54 mm, 51 cm/s.
- MCA Left: 57 mm, 49 cm/s.
- ICA (terminal) Left: 50 cm/s.
- Pulsatility Index (ICA terminal) Left: 0.75
- Pulsatility Index (MCA) Left: 1.20
- ACA Left: 21 cm/s, 63 mm.
- Pulsatility Index (ACA) Left: 1.12.
- PCA (P1) Left: 50 cm/s.
- PCA (P2) Left: 47 cm/s.
- Pulsatility Index (PCA) Left: 1.04.



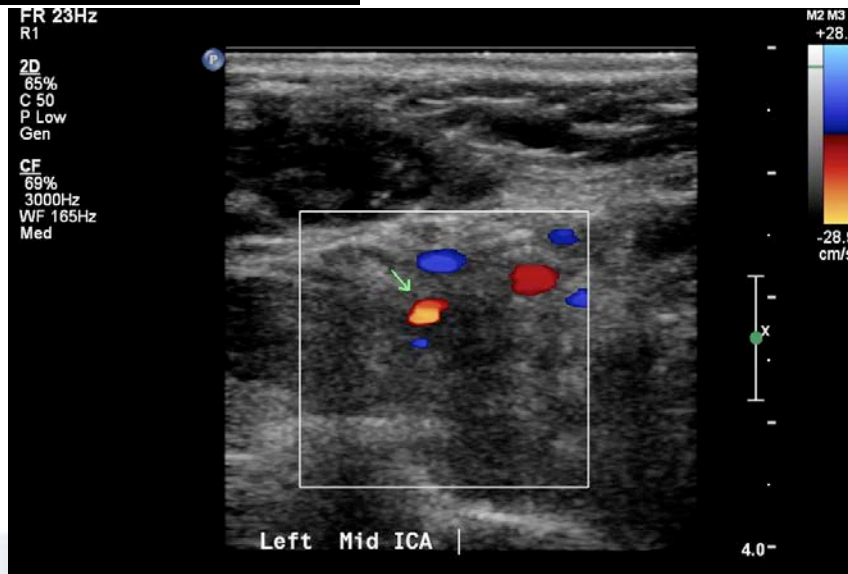
# Emboli Monitoring LMCA

- Day 1: 6 MES per hour
- Day 2: 3 MES per hour
- Day 3: 0 MES per hour
- Day 4: 0 MES per hour

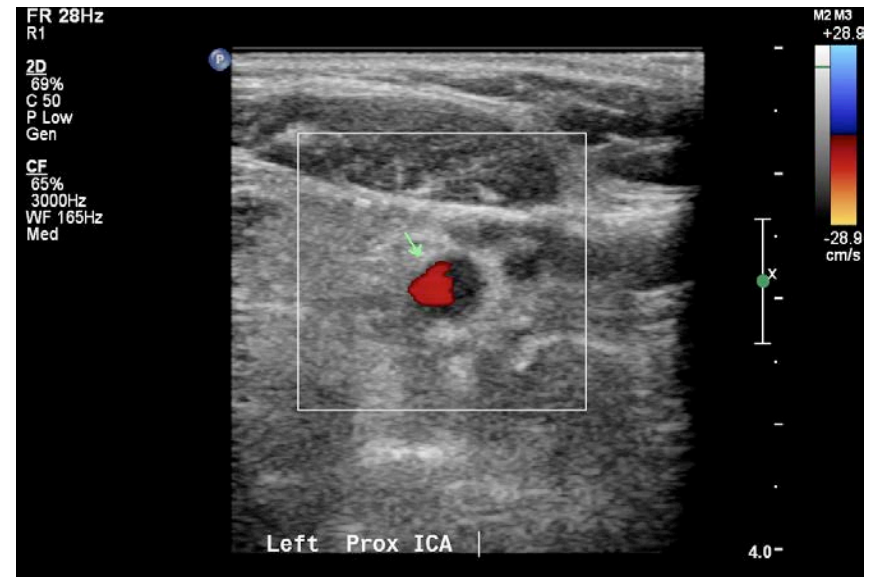
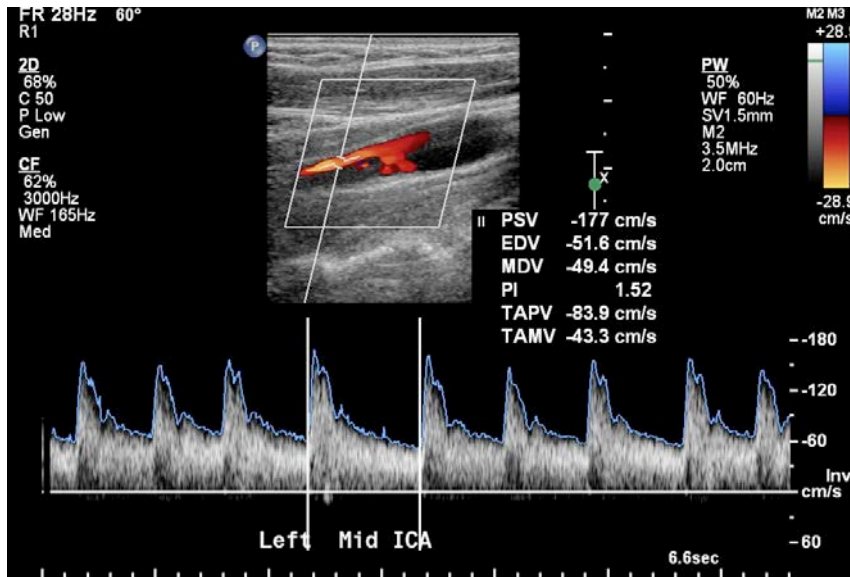
# Initial Carotid Duplex



ICA/CCA ratio: 3.41



# Carotid Duplex-3 days later



ICA/CCA ratio: 2.0

# Clinical Course

- Aphasia improved
- LMCA territory infarction
- RCRI (Revised Cardiac Risk Index) score of 3/class IV risk, which is consistent with 11% risk of major cardiac event perioperatively

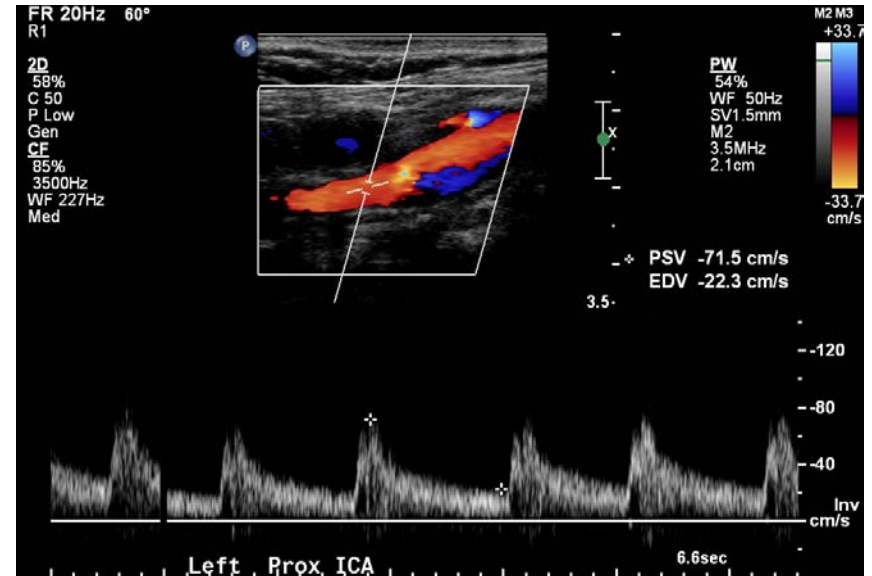
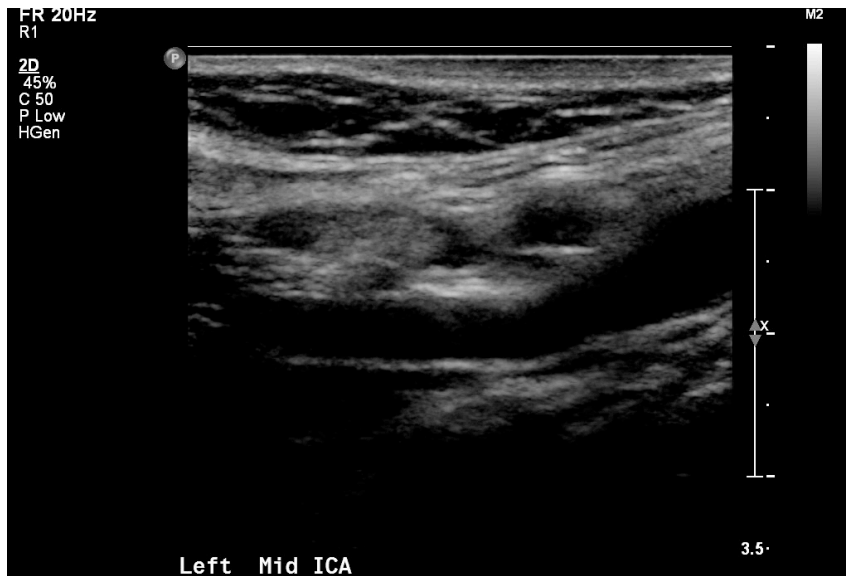
# Clinical Course

- Dabigatran was begun on hospital day 5
- Heparin stopped 4 hours after initial dose
- Discharged home the following day



# TCD and Carotid Duplex-4 months

TCD was unremarkable and follow up Emboli Monitoring of LMCA was negative





# Case Study

- Serial Transcranial Doppler and carotid duplexes were useful non-invasive exams for managing this patient's clinical course
- TCD and CU are useful for providing additional information to invasive exams, as well as for follow-up exams.