

# Incidentally Detected Overlooked Coarctation of Aorta During Cerebral Angiography

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# Disclosure

- None potential conflicts of interest

# Presentation

- 57 year-old ♂
- Hypertension and coronary artery disease (+)
- Ex-smoker
- 08/2021 → Admitted to ER with weakness in right arm

# Past Medical History

- 2017 → Coronary angiography (Transradial approach) → Multivessel disease → CABGx4
- 2020 → Bilateral lower extremity claudicatio → Peripheral angiography: Normal

# Medications

- ASA 100 mg QD
- Clopidogrel 75 mg QD
- Pantoprazol 40mg QD
- Metoprolol 50 mg QD
- Perindopril indapamide 5/1.25 QD
- Atorvastatin 20 QD
- Spironolactone 25 mg qd

# Physical Examination

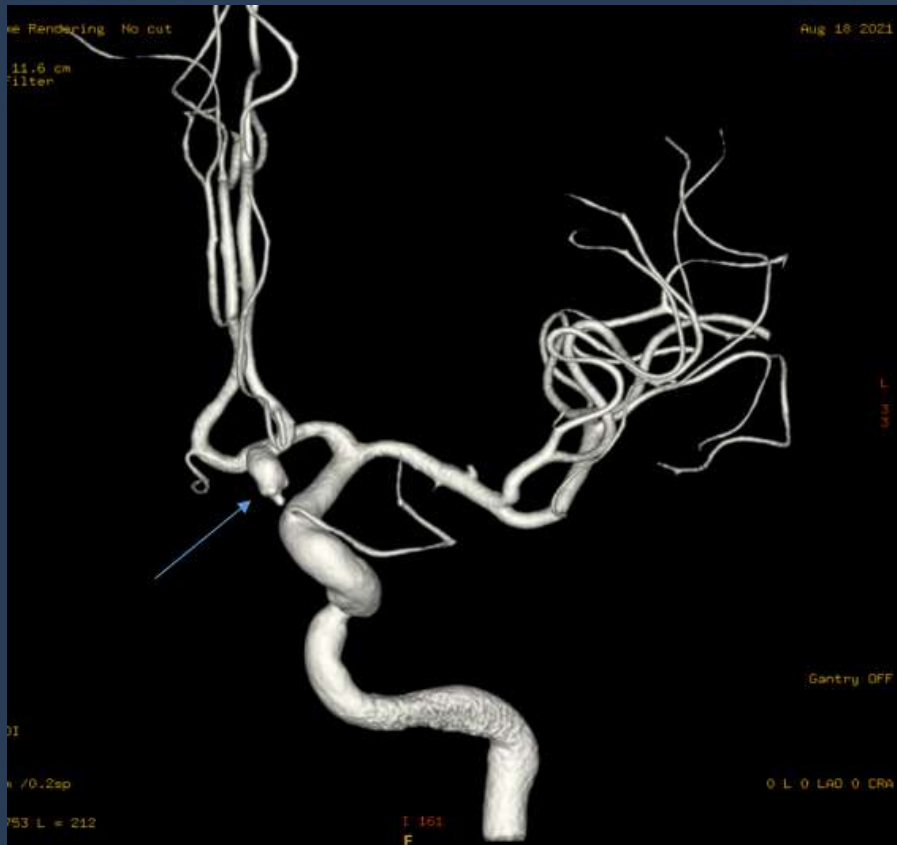
- S1,S2,S3 (+)
- Clear lung sounds
- Femoral artery pulses weaker than radial pulses
- Neurological examination: Normal → TIA?

# Laboratory

- CBC → Normal
- Kidney and liver function tests → Normal
- Cardiac biomarkers → Normal

# Management

- Head and neck CT angiography → Saccular aneurysm at left anterior communicating artery (No bleeding)

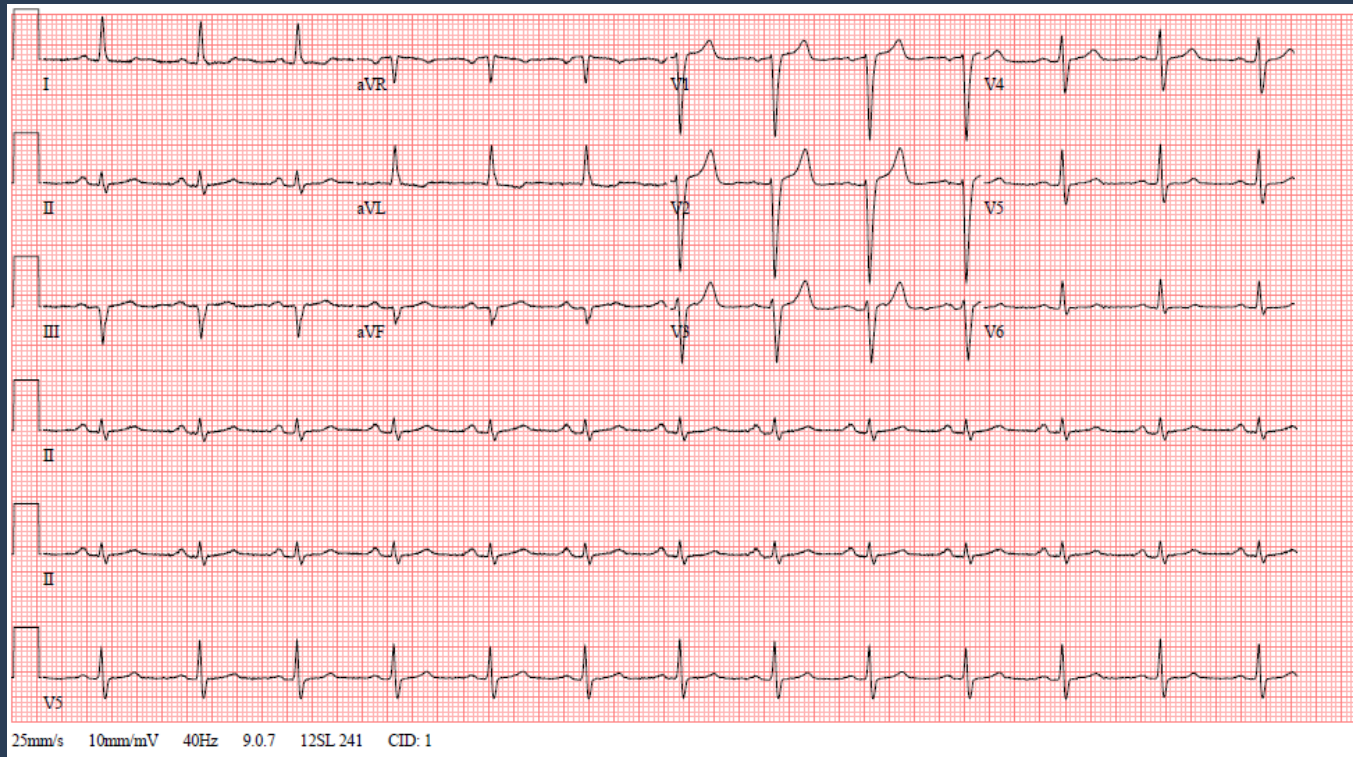




# Management

- Cerebral angiography was planned with the aim of endovascular treatment of saccular aneurysm
- **Coarctation of aorta** was detected during at the beginning of angiography procedure and catheter could not be passed through the coarctation

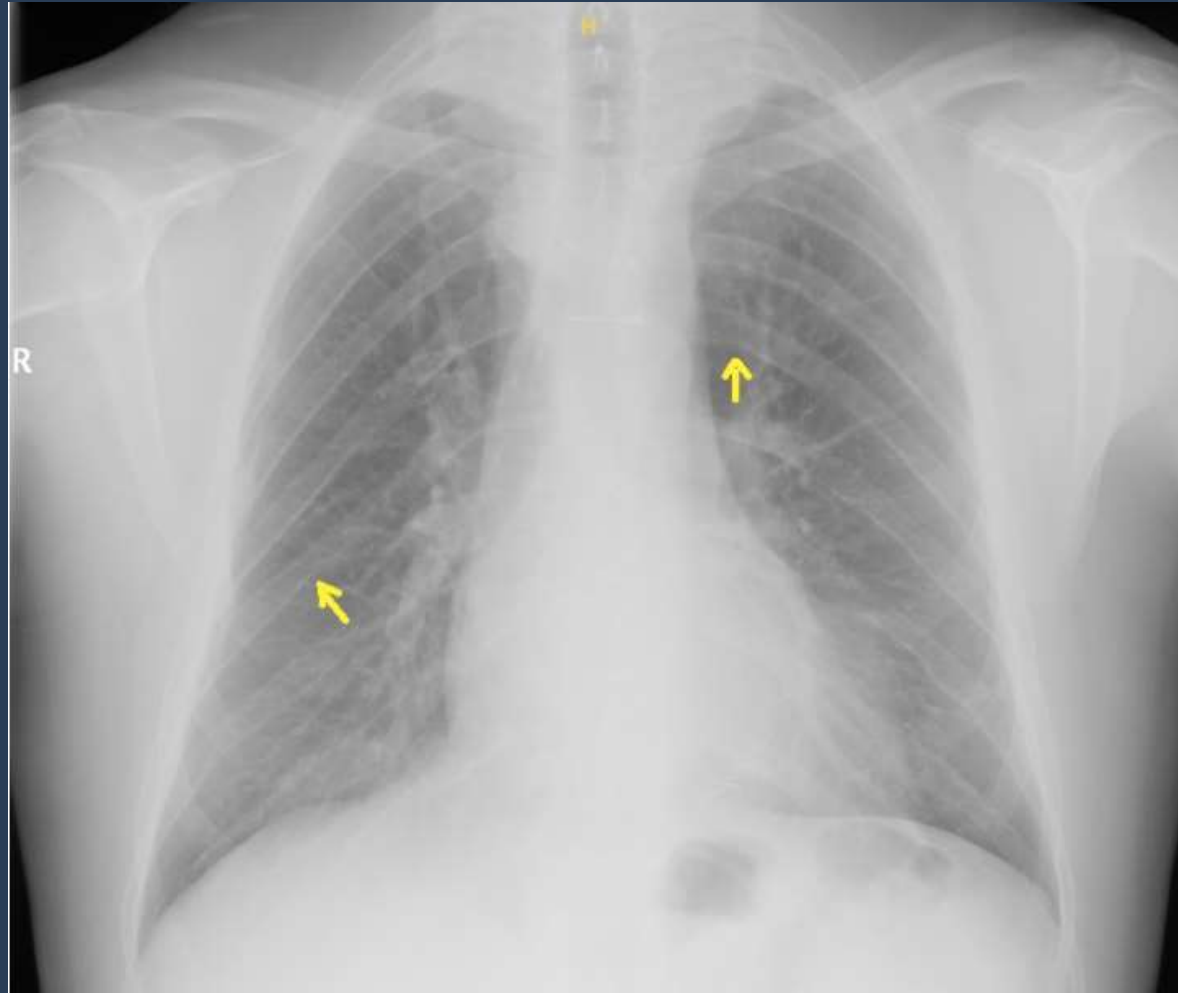
# ECG and Echocardiography



- Echocardiography;

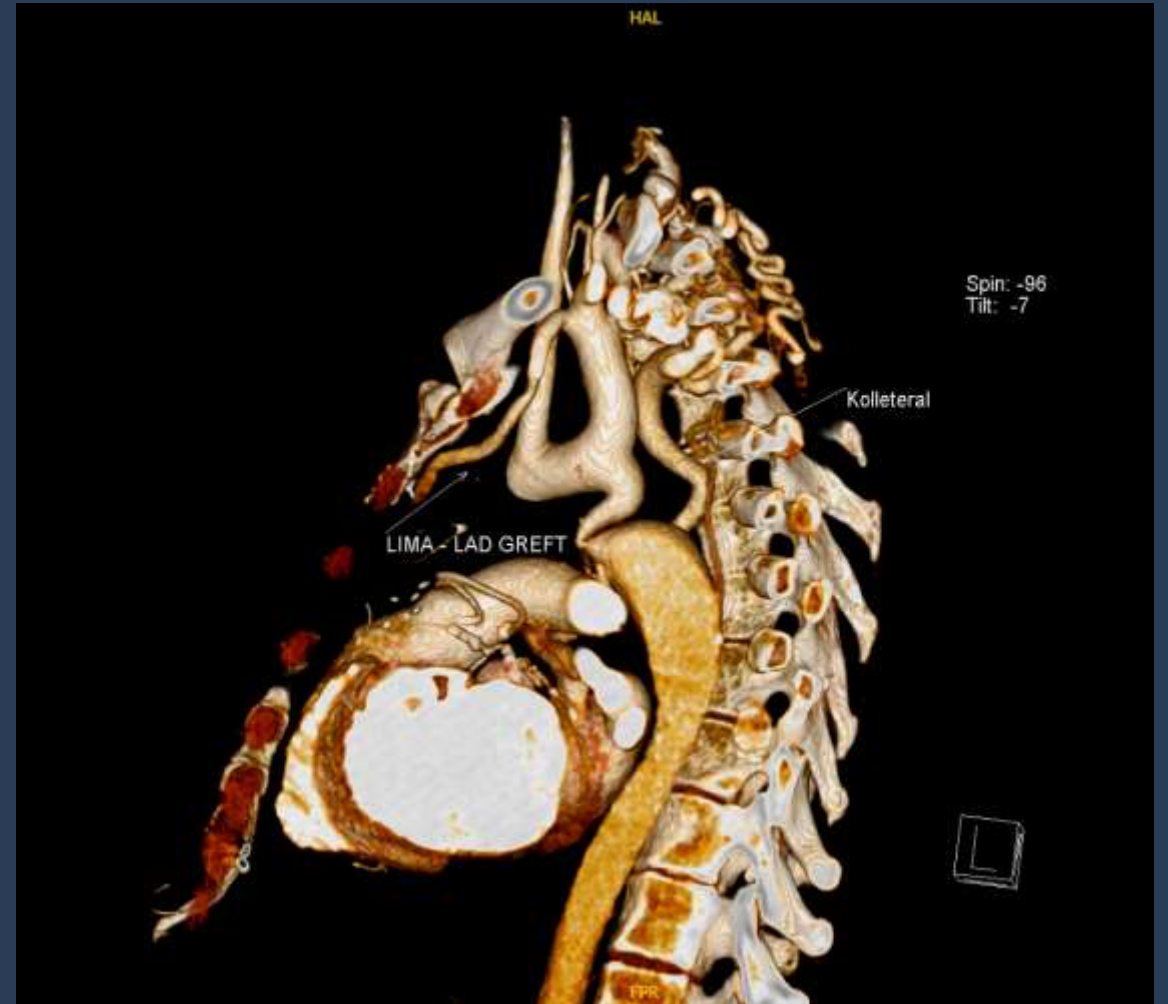
- LV EDD: 48mm
- LV EF: 62 %
- IVS: 12 mm
- Ascending aorta: 37 mm
- Mild MR
- Mild TR

# Chest X-ray



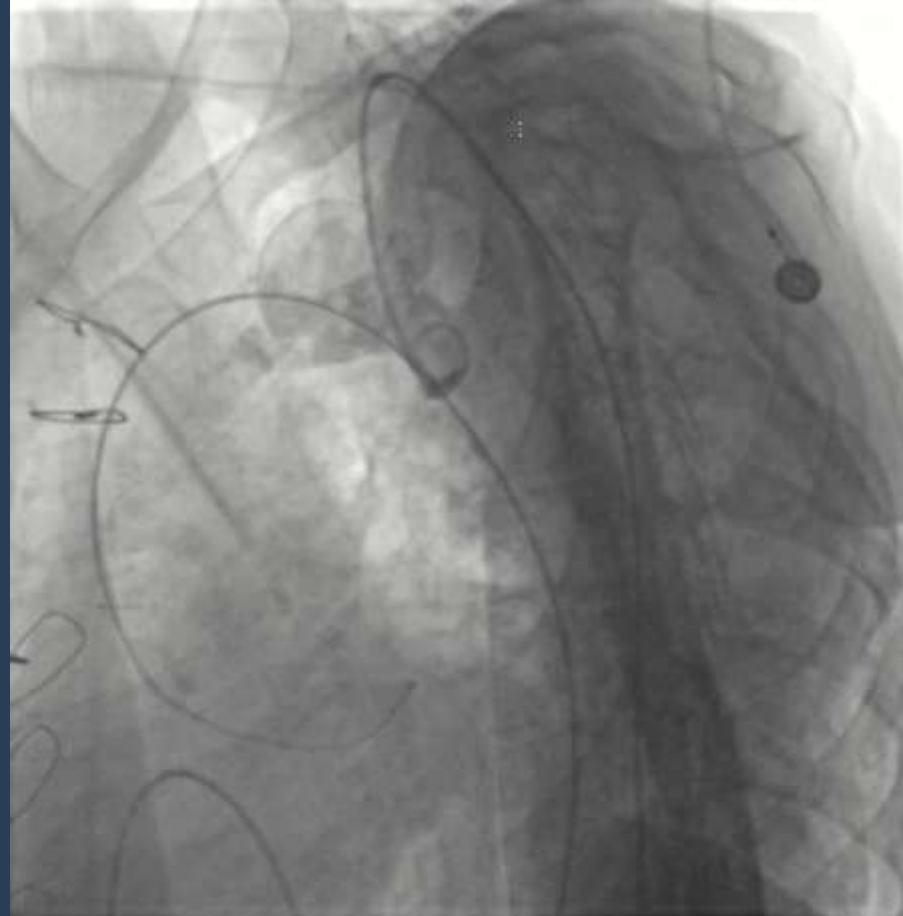
# Cardiac CT

- CABG grafts are patent
- No additional congenital defects
- Post-ductal coarctation (+)

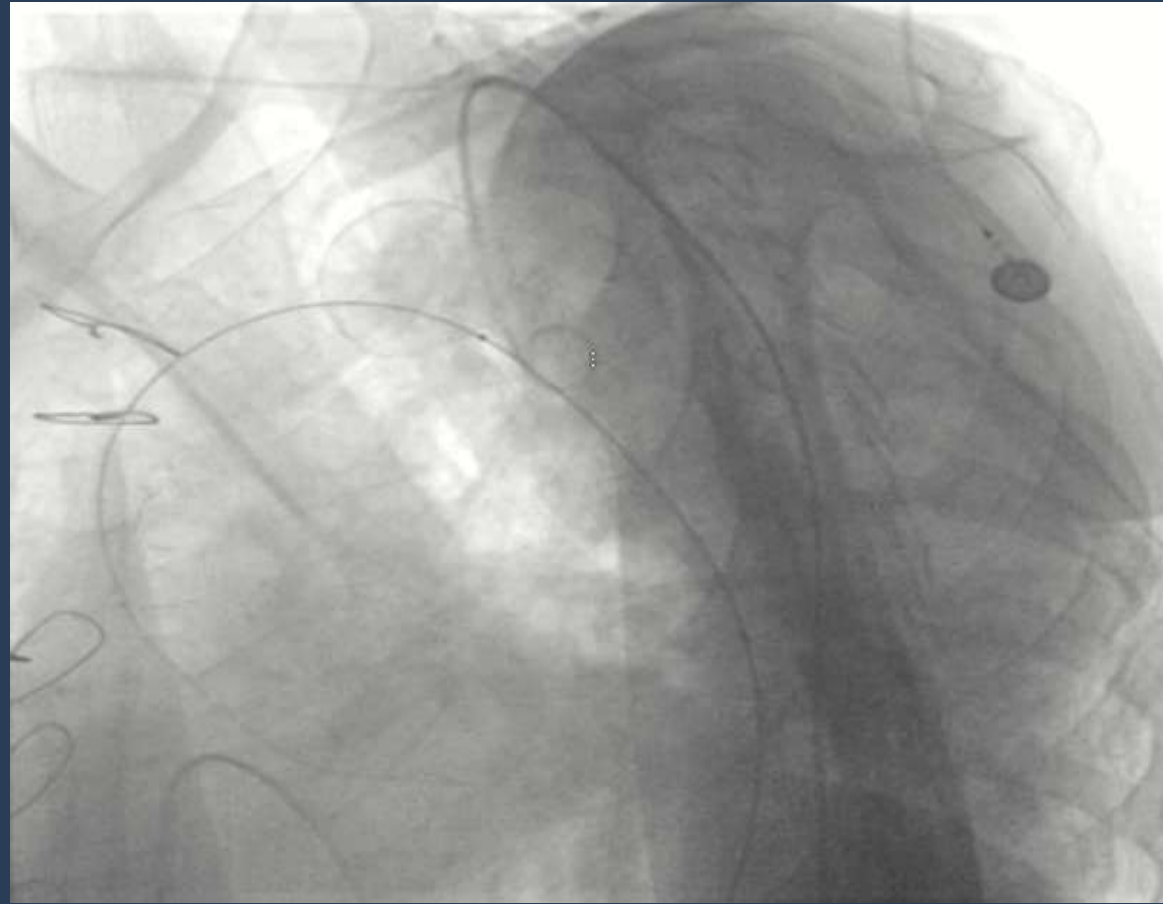


# Aortography

- Translesional gradient : 30 mmHg

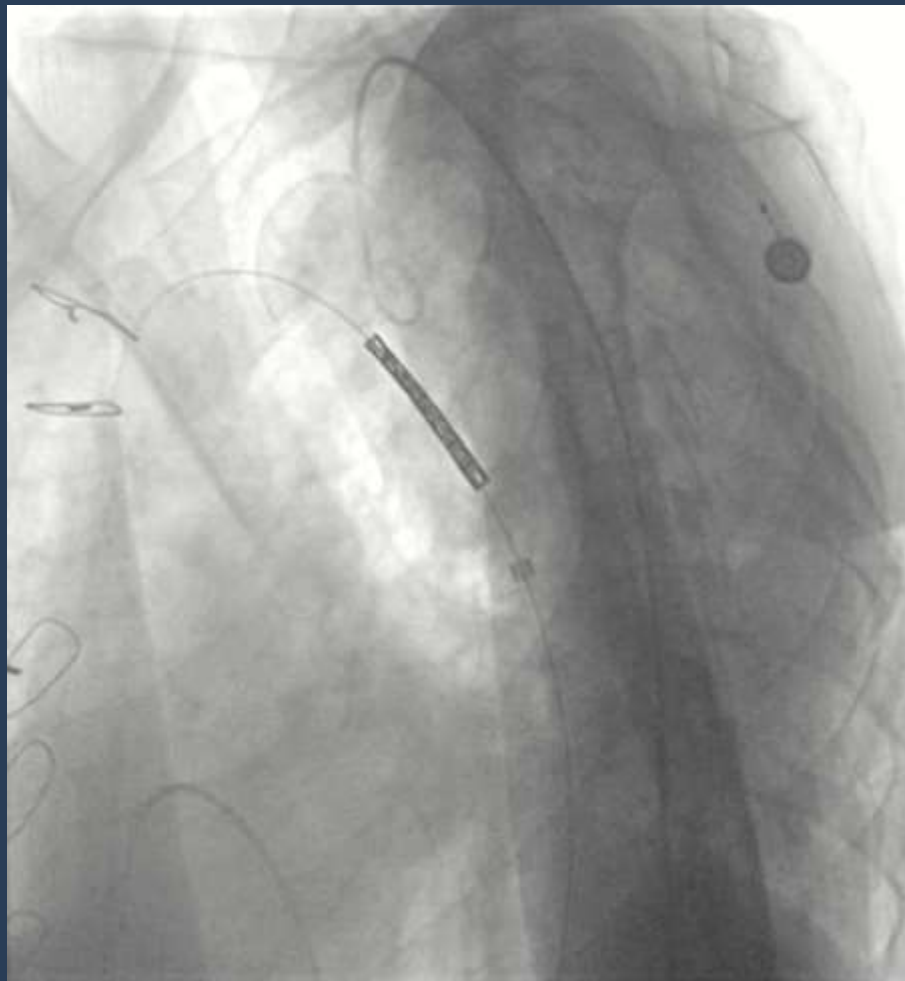


# Balloon angioplasty

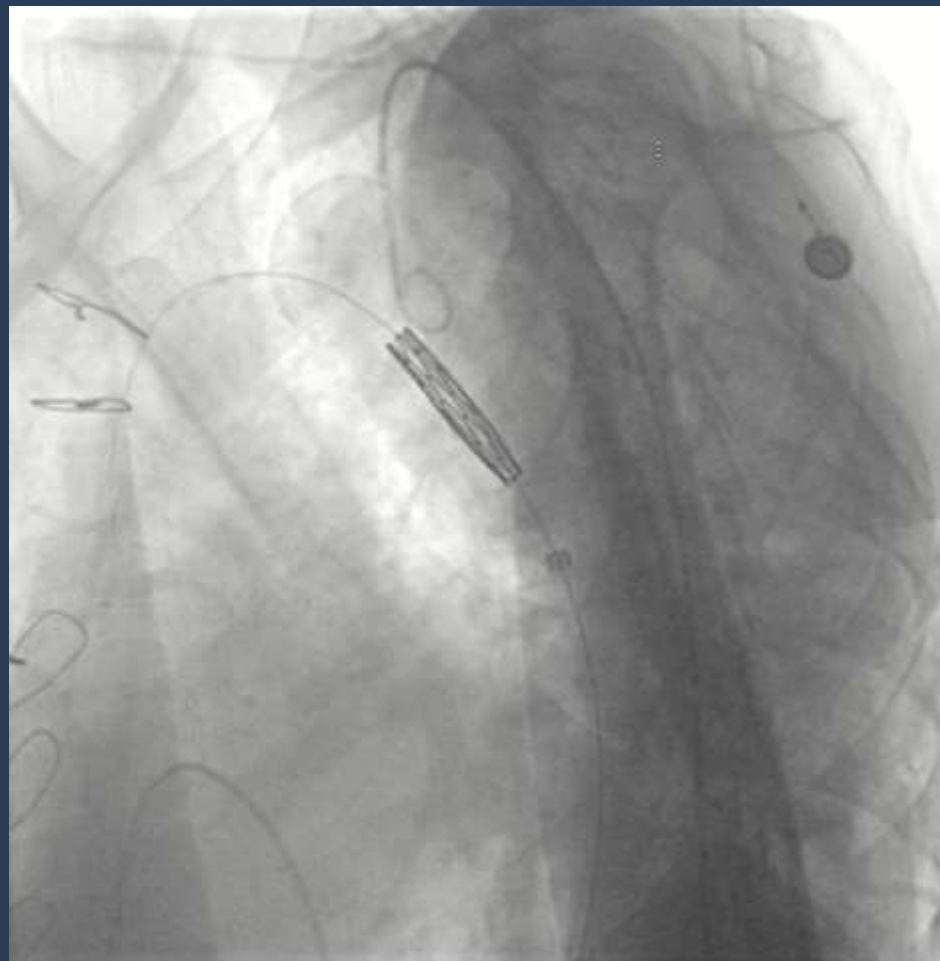




Inner balloon  
7x30 mm



Outer  
balloon  
14x40 mm



# Stenting



- Covered stent (39 mm) was implanted
- Translesional gradient reduced → 3 mmHg
- Elective endovascular treatment for saccular aneurysm was scheduled



# Take-home Messages

- Coarctation of aorta may be overlooked even in patients underwent CABG surgery if coronary angiography was performed via transradial approach
- Intracranial Berry aneurysms usually coexists with coarctation of aorta
- Coarctation of aorta should be considered in patients with bilateral lower extremity claudication and normal lower extremity arteries

*Thanks for your patience...*