

Role of Covered Stents in the Management of Aortic Coarctation

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Covered Stent for CoA

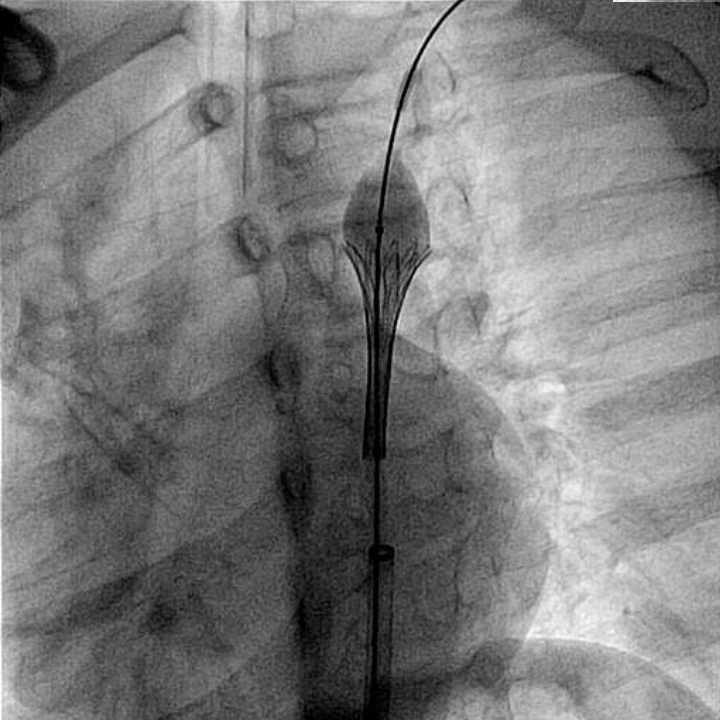
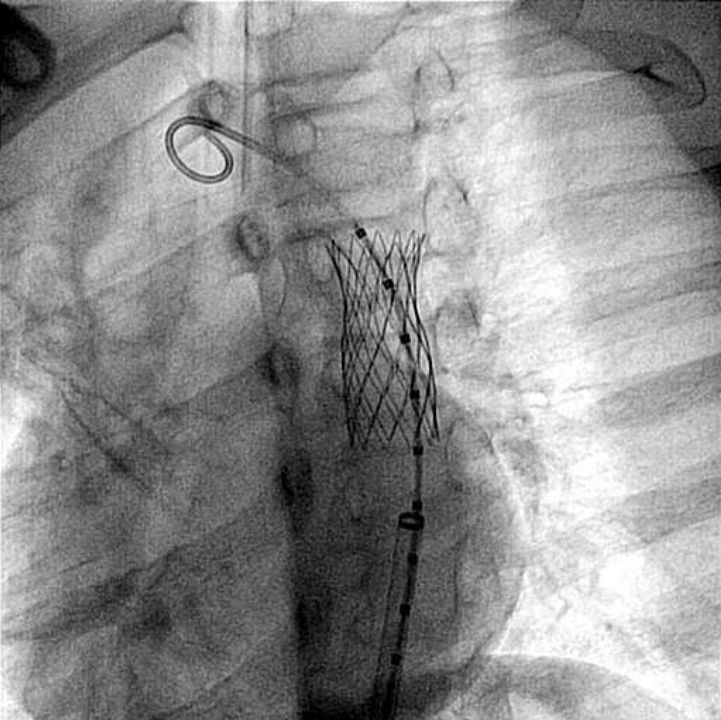
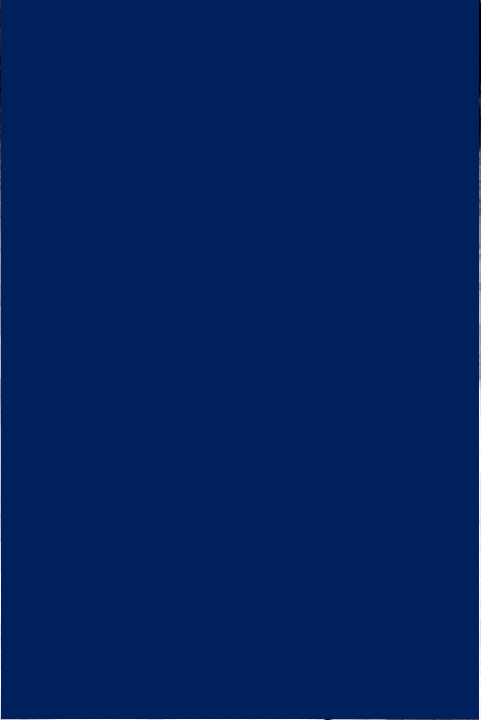
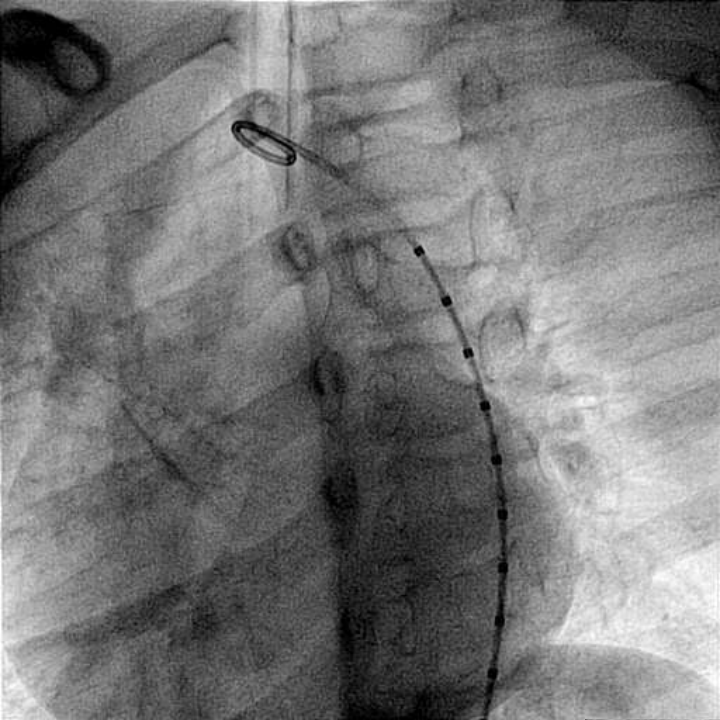
- Has become a “NORM”
- All Live Workshops in the 7-8 years – Almost always use of a covered stent
- BMS could have done the job equally well
- One needs to be choosy
- Covered stent can save life. A must in the lab

Why the shift?

- Maximum law suits in the US are for coerct interventions
- More aggressive stenting
- Availability
- Industry's push

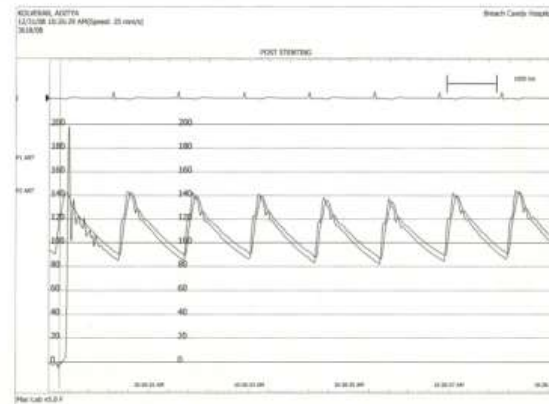
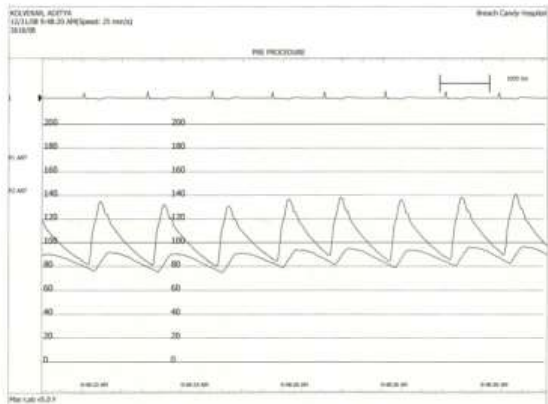
“BMS can do equally good job”

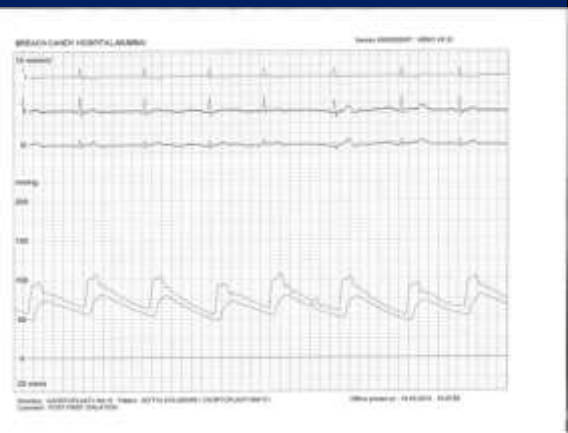
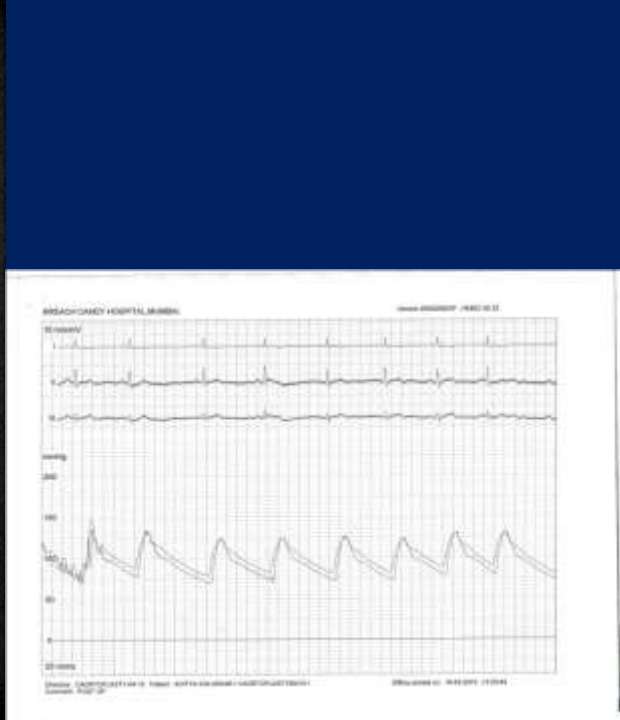
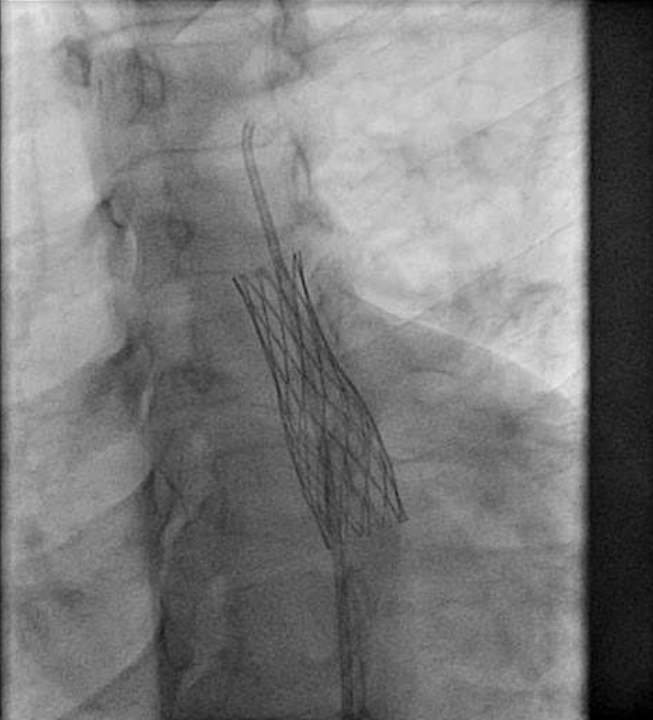
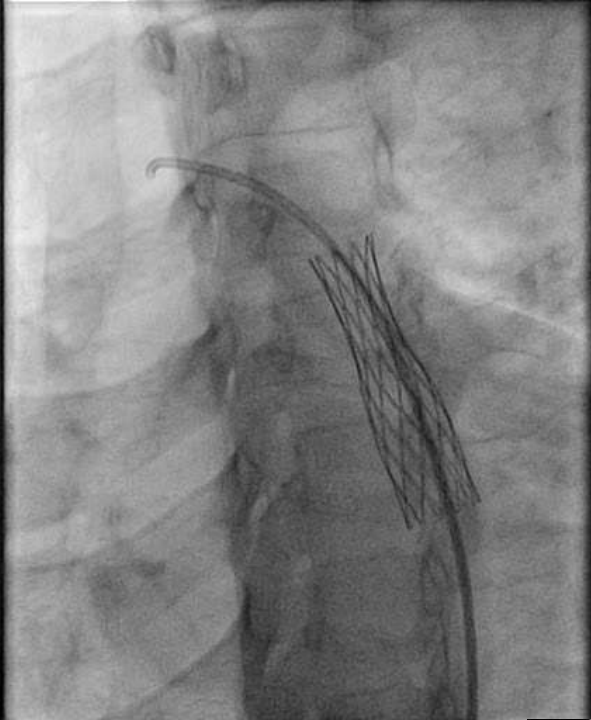
- 126 cases
- 16 Covered stents
- 12%
- No dissection/pseudoaneurysm/tear
- Low risk subset
- No predilatation
- Less aggressive. Two staged. Functional result
- **“LUCKY”**



Staged deployment ?

- Our routine practice
- Leave behind a small waist on the stent
- Post dilate after 6 months to 1 year
- Reduced incidence of dissection/aneurysm
- Time for aortic remodelling





Indications

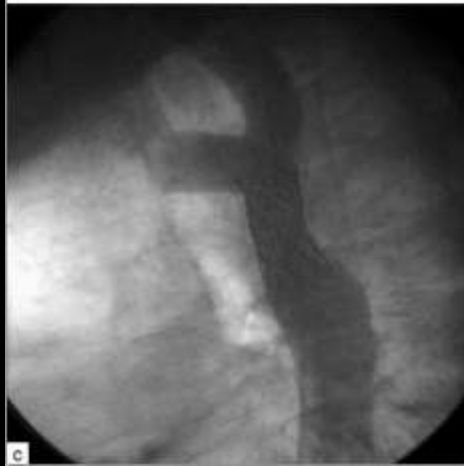
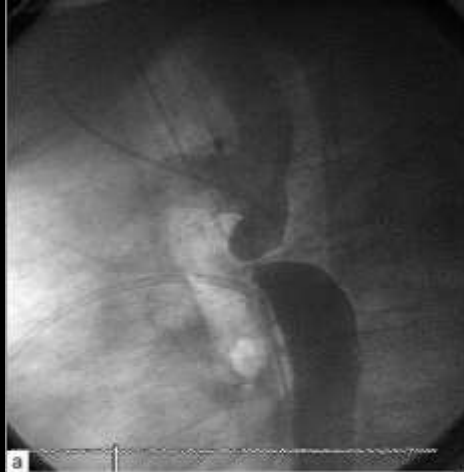
- Critical obstruction or aortic atresia
- Coarctation in elderly : Calcific aorta
- Noonan's syndrome
- “Nasty” Bend in the aorta
- Acquired CoA: Aortoarteritis/Takayasu's

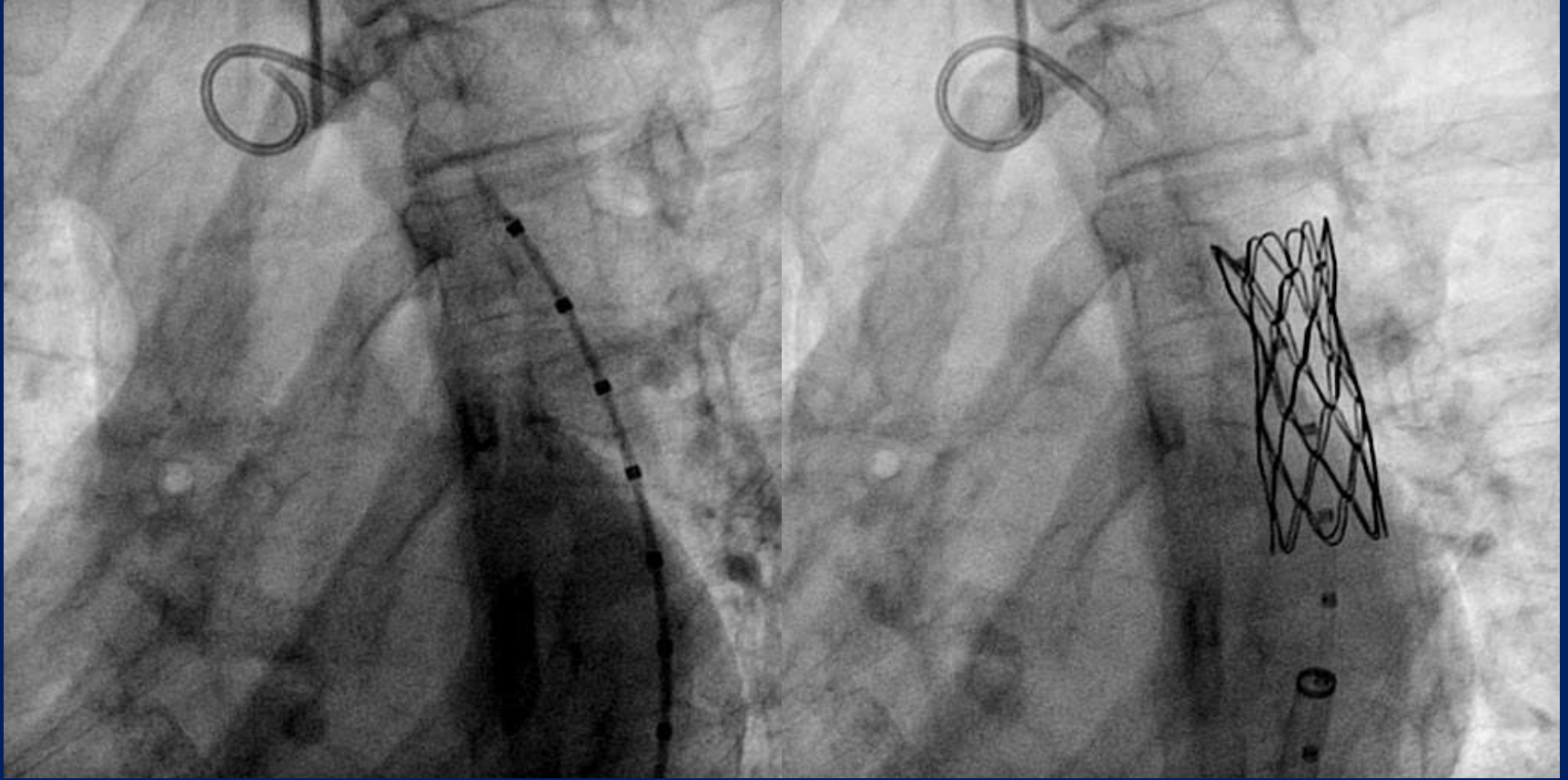
Indications

- In stent restenosis
- Previous stent related complications
 - Fracture
 - Pseudoaneurysm
- Coarctation associated with PDA
- Acute arterial wall complications (bail out procedure)

Very tight CoA

- < 3 mm diameter
- Aortic atresia

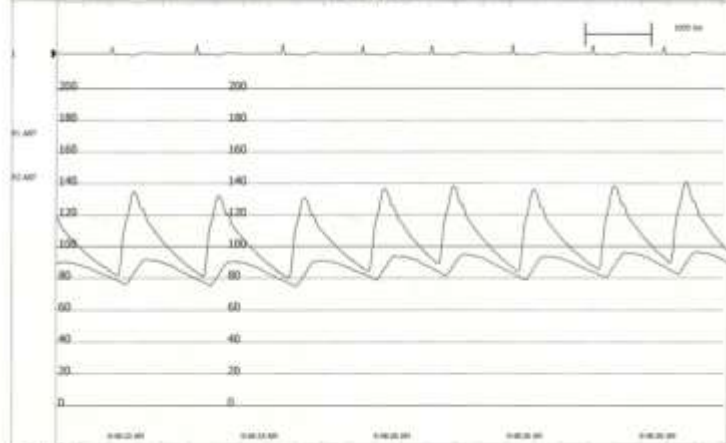




KOLVENAL, ACUTYA
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 28.08.08

Breath Care Hospital

PRE PROEDURE

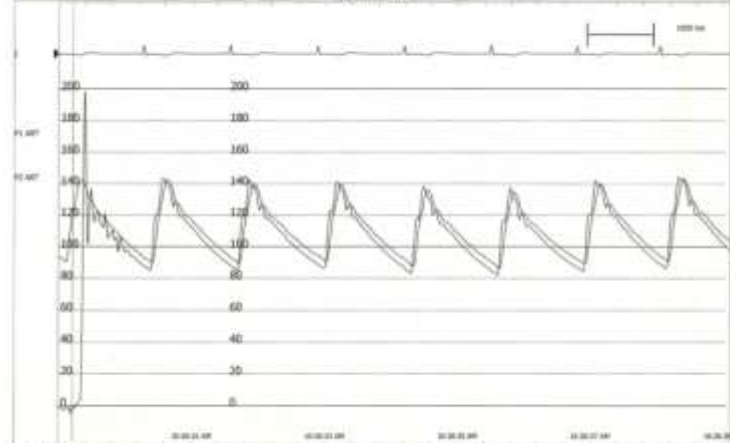


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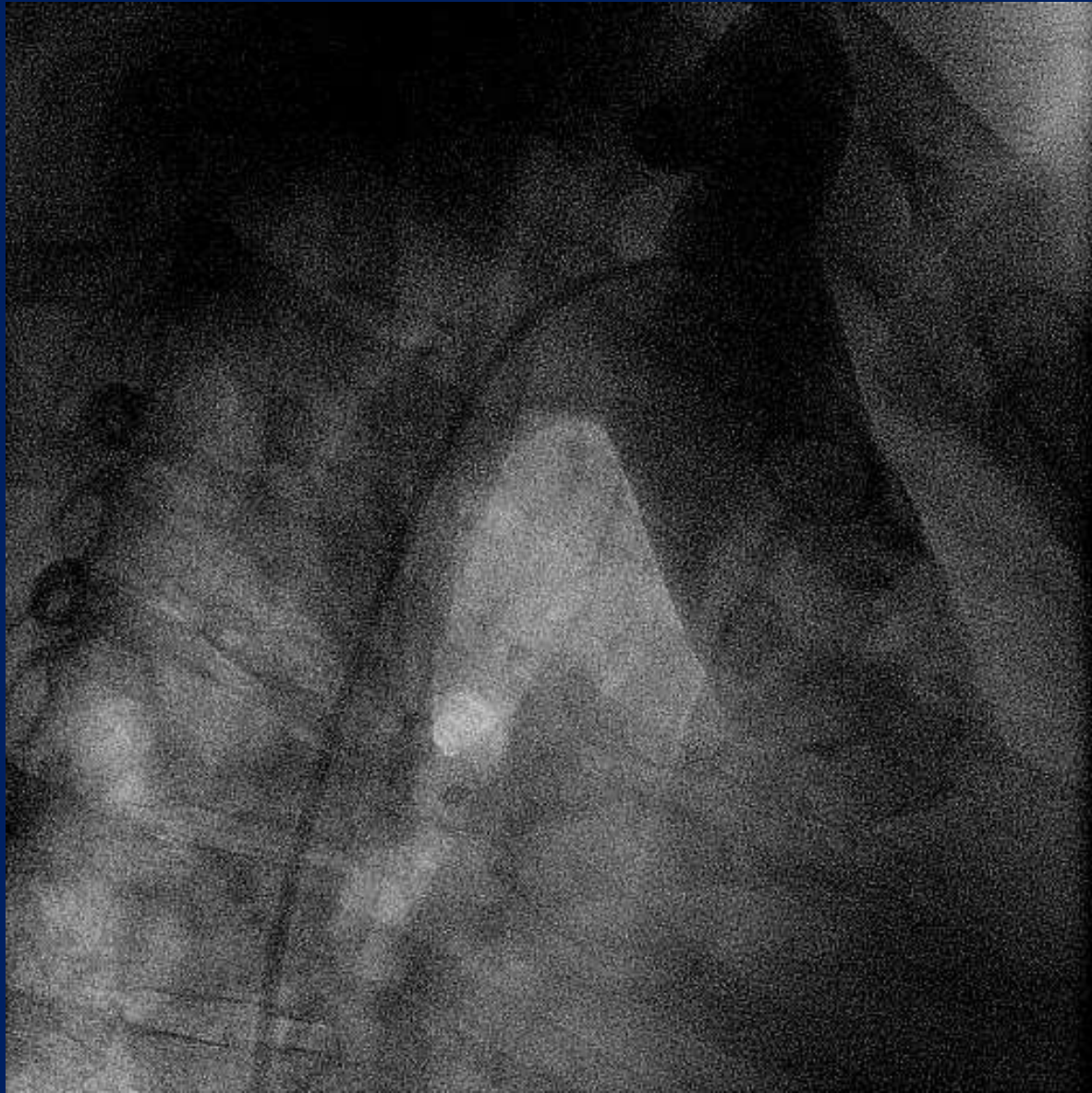
Breath Care Hospital

POST STENTING



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“Nasty” bend

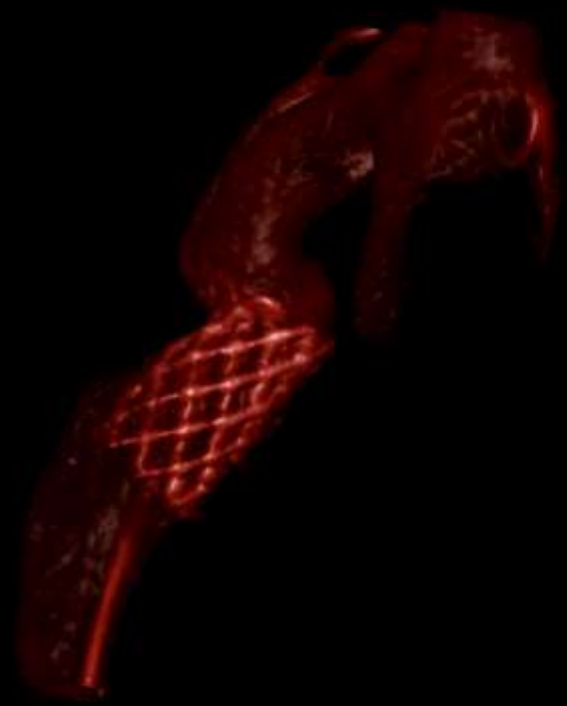




SHAH, MRS ARJUMAND A 31Y
00011484000ACTO PLASTY 022
FAng: -16°
Run 9044 - Frame 1 / 36



SHAH, MRS ARJUMAND A 31Y
00011484000ACTO PLASTY 022
FAng: +16°
Run 9043 - Frame 1 / 36



- KV, - mAs
Zoom 100%

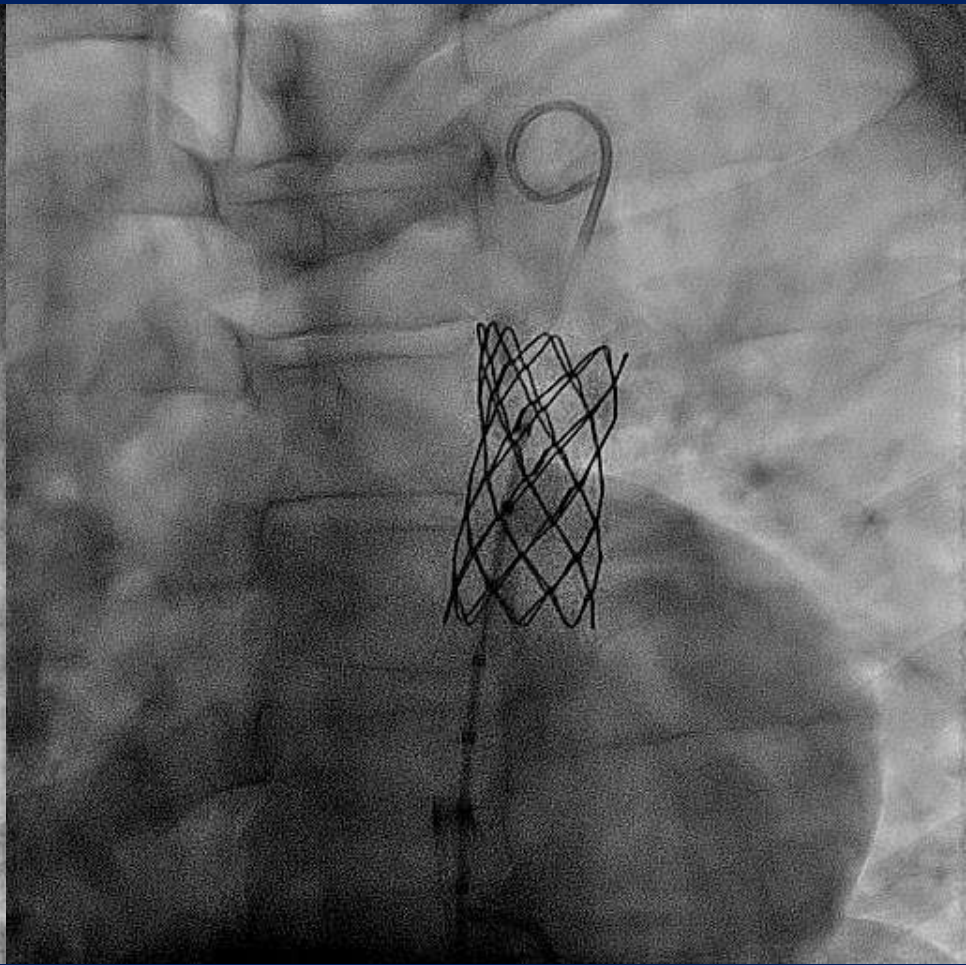
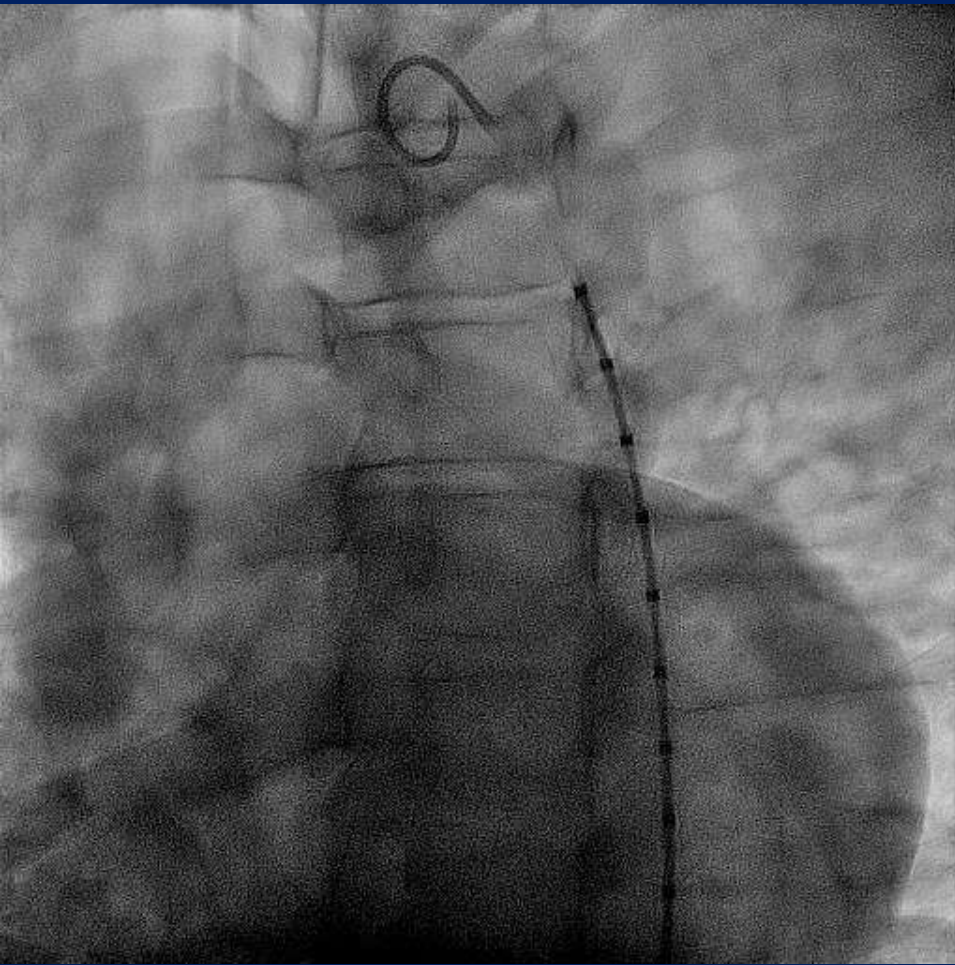


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“Aggressive” Stenting

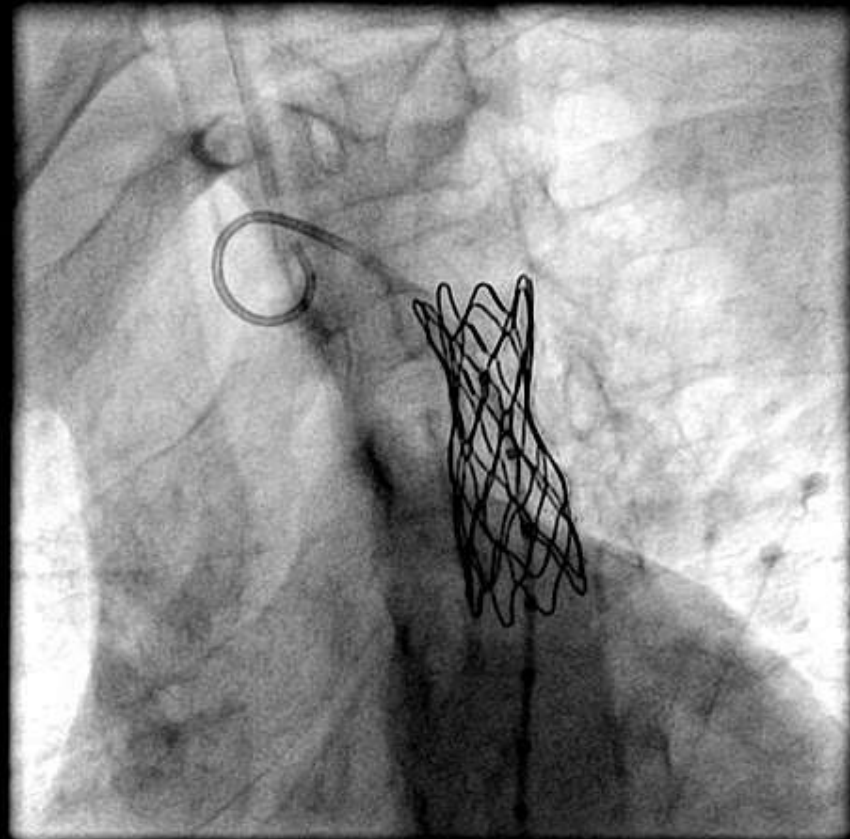
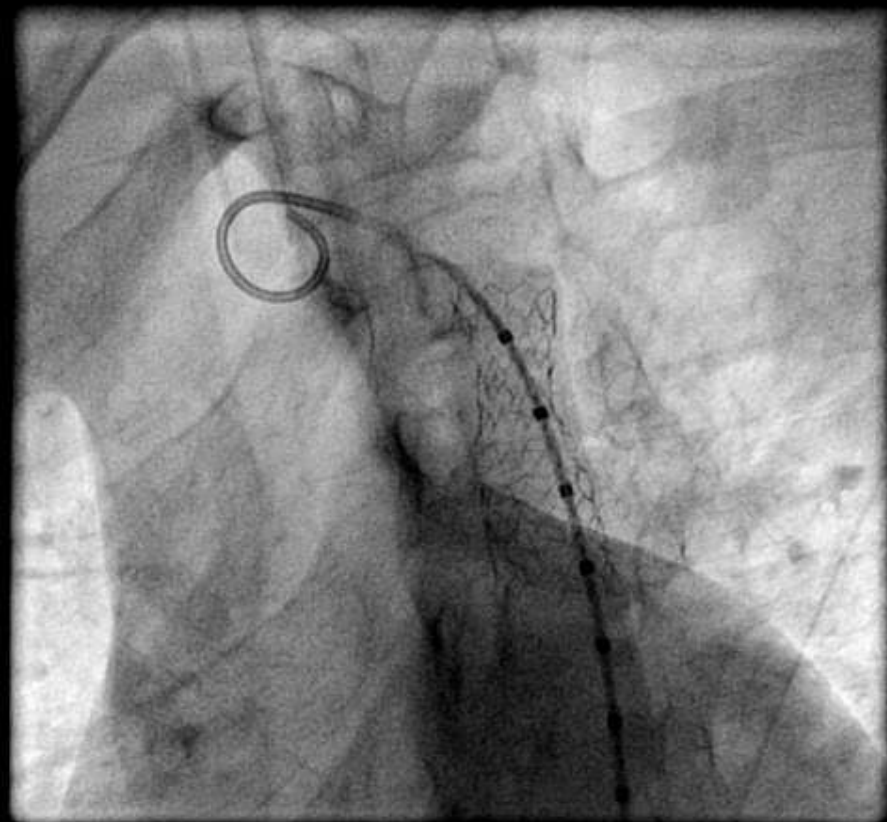
- Severe LV dysfunction
- 48 year old
- Dilated cardiomyopathy
- Now normotensive. Once in the past HT
- Femorals were absent





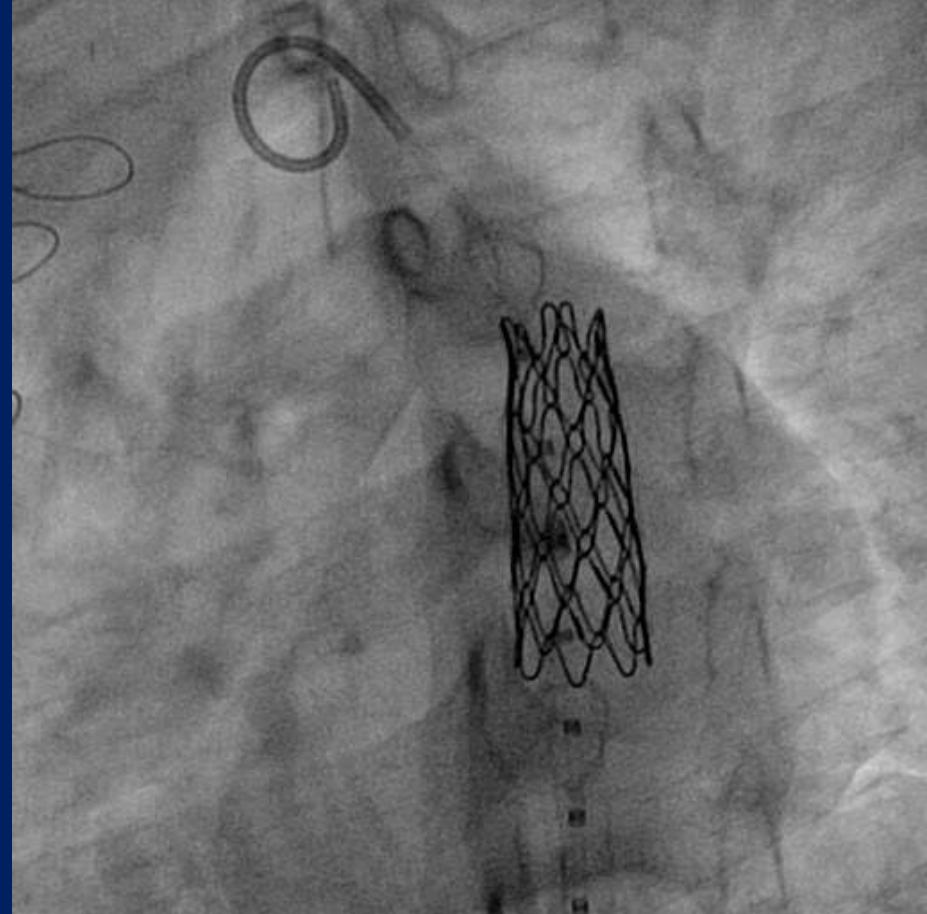
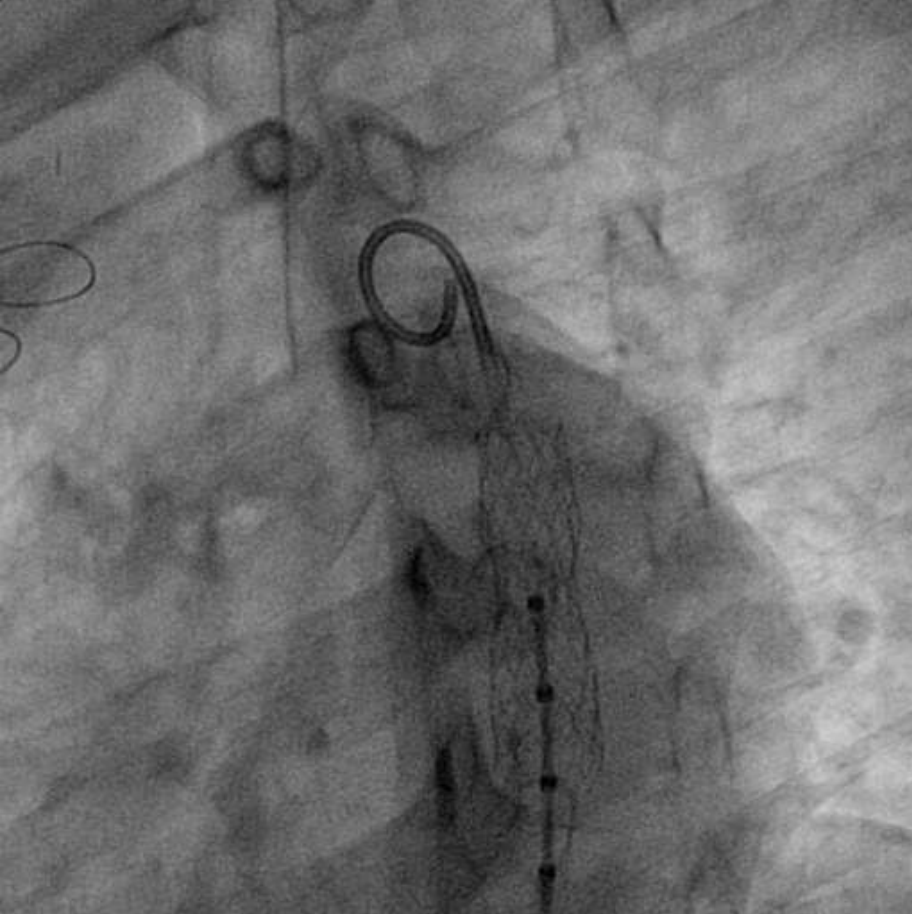
Stent fracture

- No stent is immune
- Some are more likely to fracture
- Silent, restenosis, distal embolization
- BMS or Covered stent

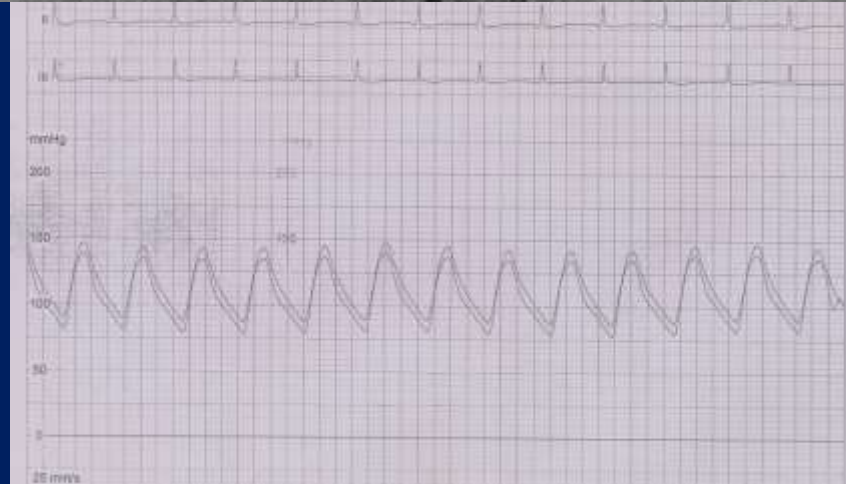


Restenosis

- Can occur within any stent
- Redilatation with a larger balloon
- Restenting the lesion with a BMS
- Use of a covered stent

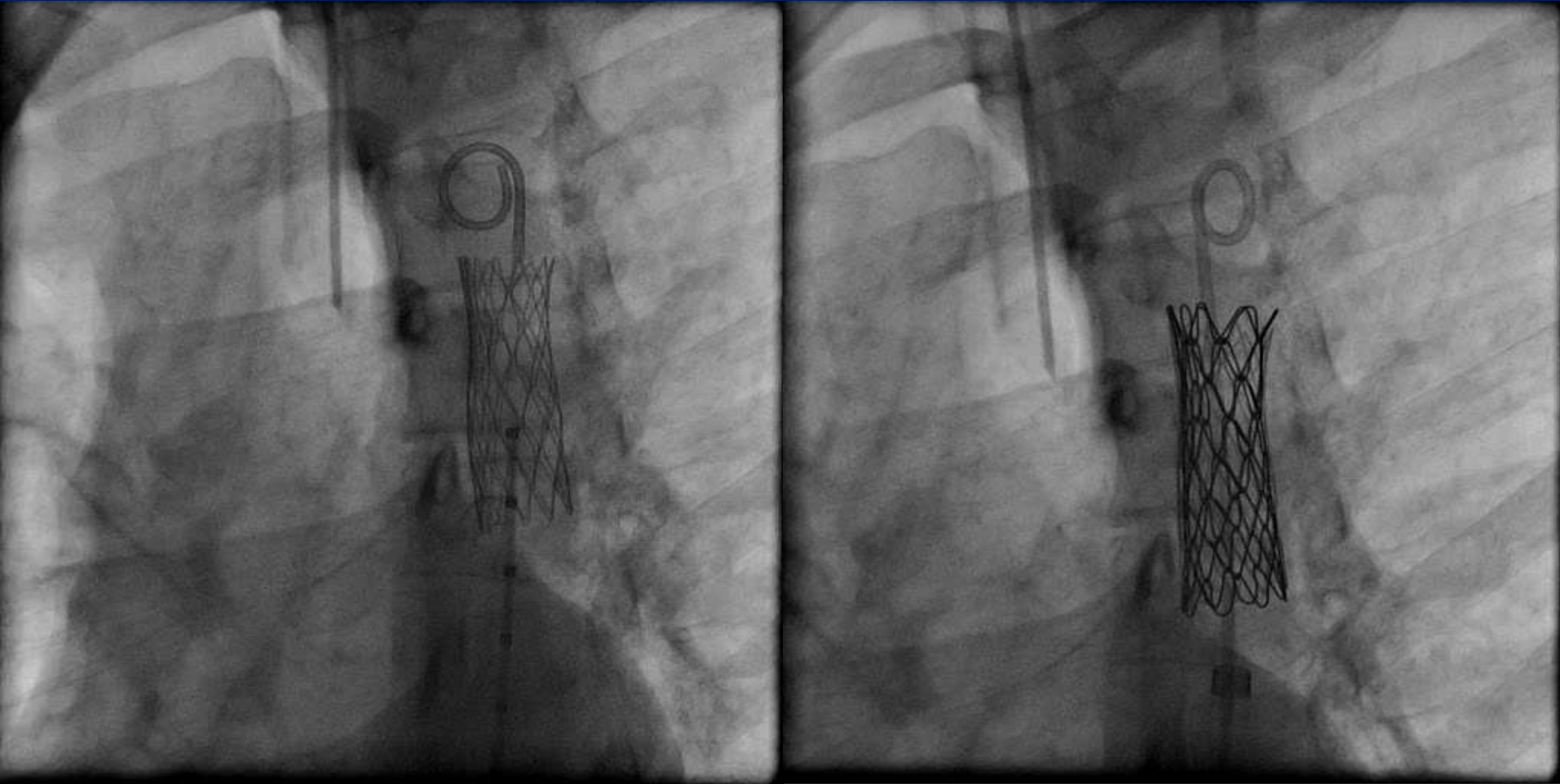


Dr. Name: Pawan - NISH ZAHRA A M 13V SHEWAN / CORRECTO PLASTY 1522 /
Relative posted on: 11-07-2012 21:58:27



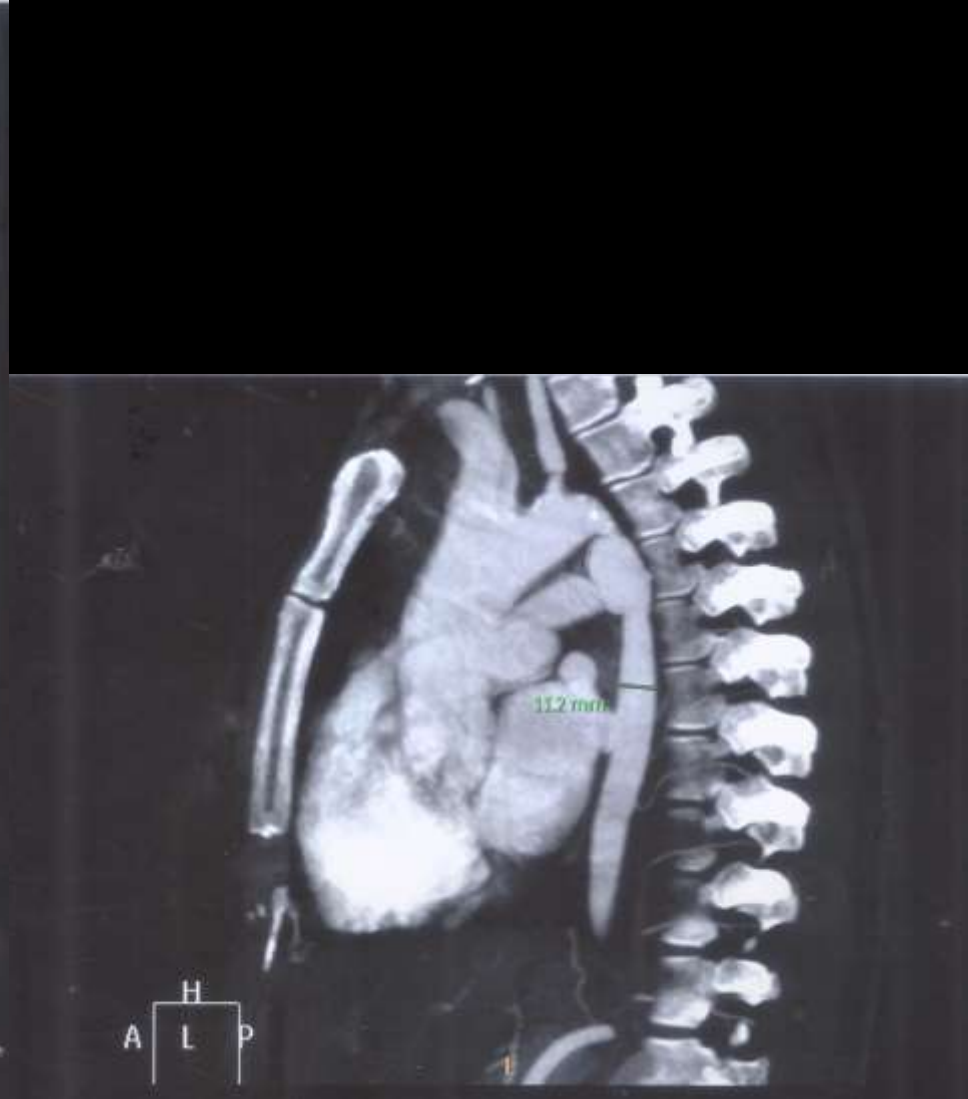
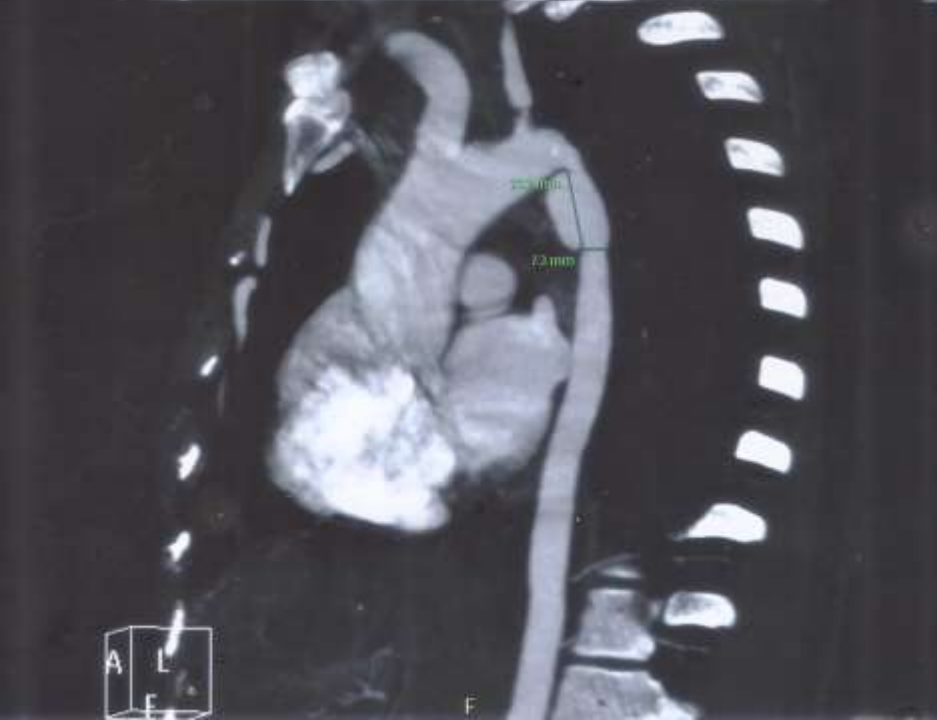
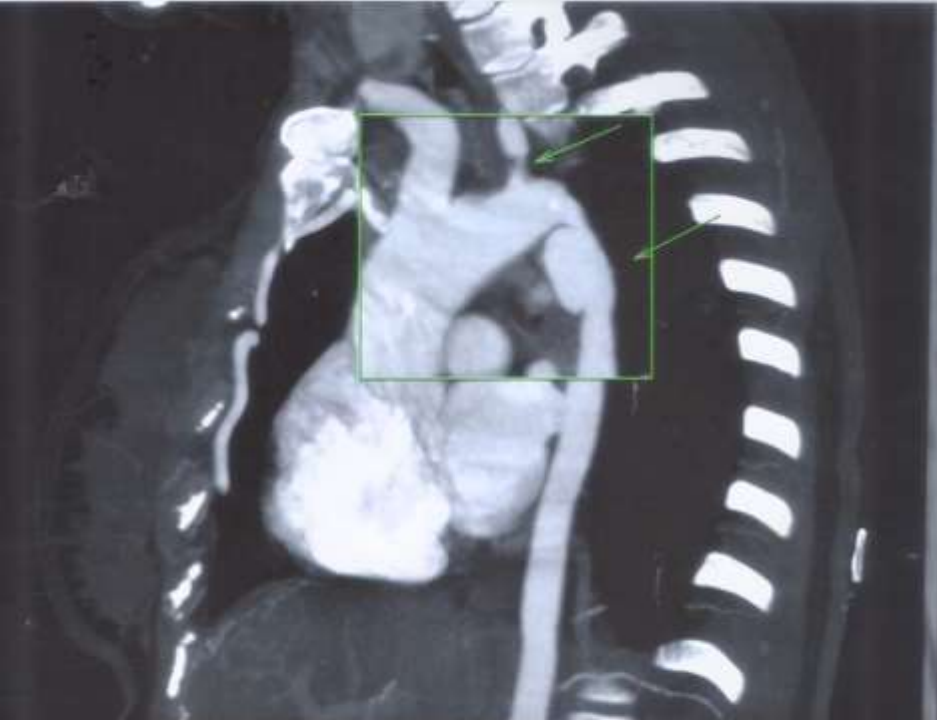
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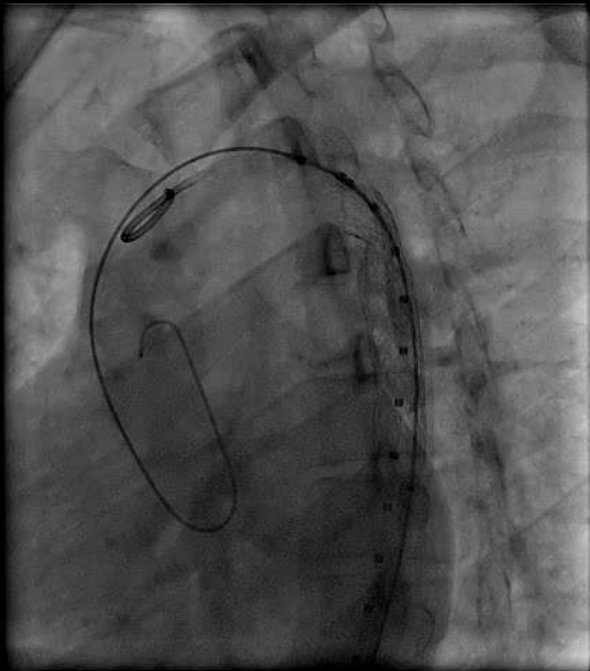
Pseudoaneurysm: Aggressive stenting



Acquired CoA

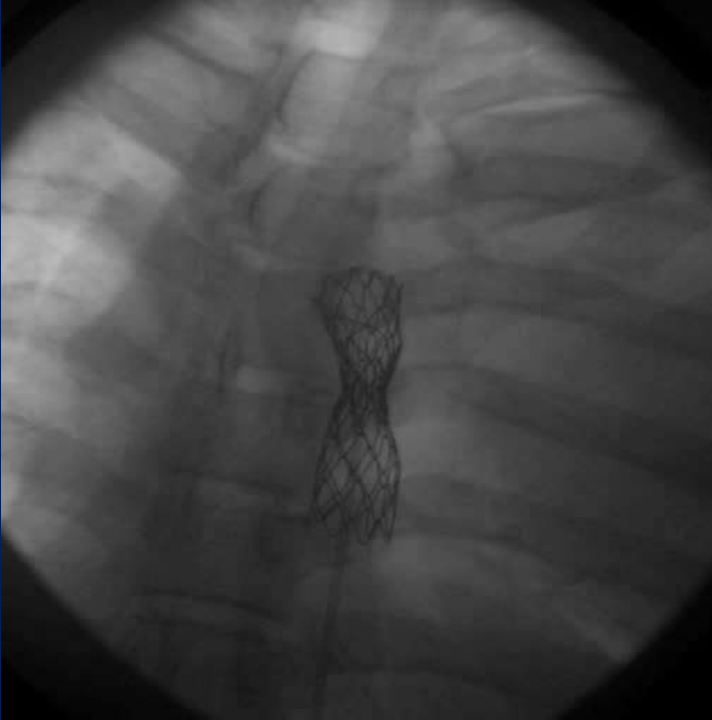
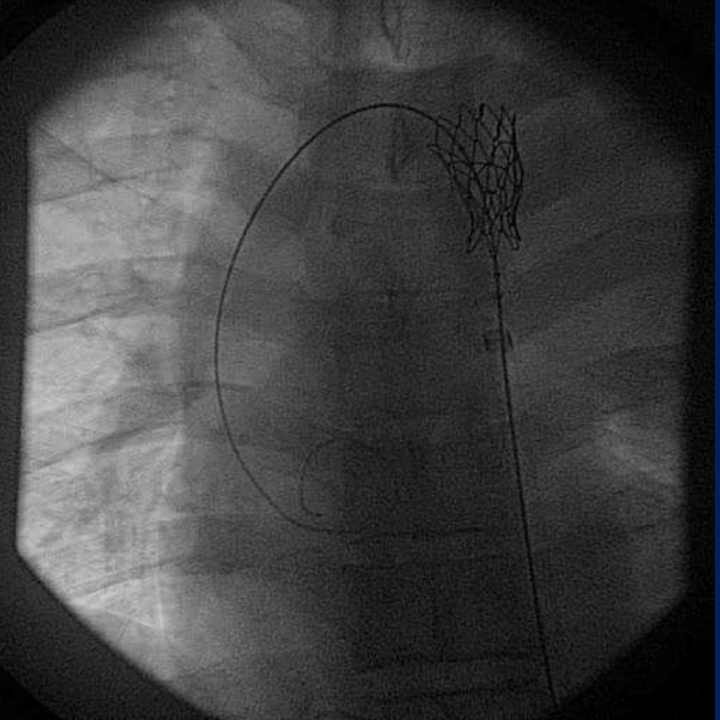
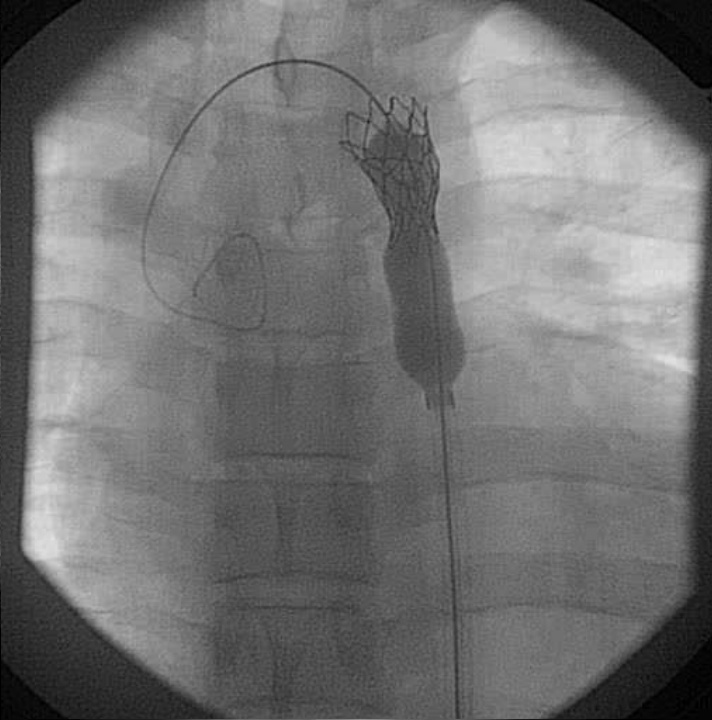
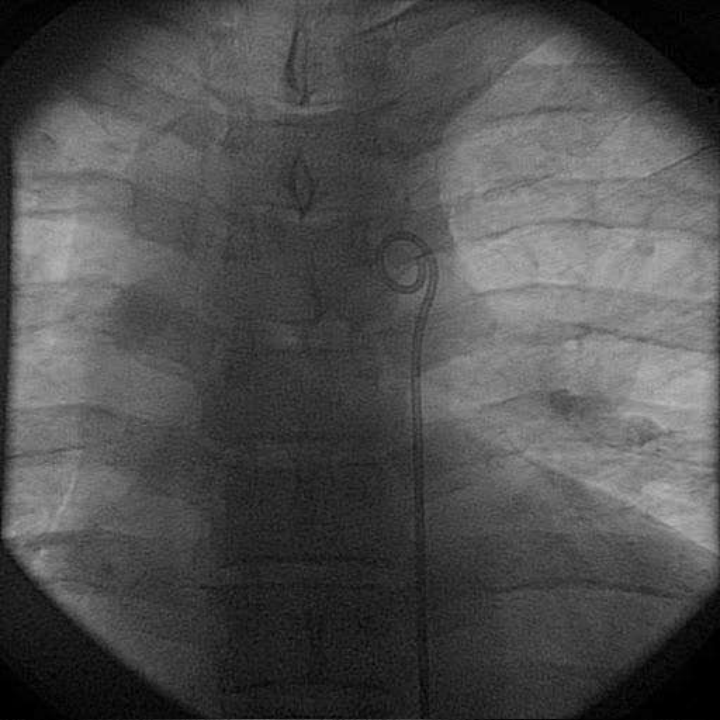
- Aortoarteritis/Takayasu's disease/Middle aortic syndrome
- Aorta can be very fragile: Chance of rupture
- Acute phase reactants
- Use of steroids prior to intervention











Courtesy:
Shakeel Qureshi

Limitations

- Larger profile - Bigger vascular access
- Side branch occlusion: Subclavian
- Embolization – More catastrophic
- Cost
- Availability
- Endoleak
- Dissection rare

Conclusion

- No need to use covered stents in one and all
- There are definite indications
- Mandatory to have it “on shelf”
- Save life
- Limitations:
 - Access
 - Availability
 - Cost
 - Side branch occlusion