Understanding The Cardiac Catheterization Report

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Disclosures

I have no relevant relationships with commercial interests to disclose.
Indication/Clinical History

- Acute coronary syndrome
- Stable angina
- Chest pain
- SOB
- Cardiac arrest

Procedural Details

- Procedure performed
  - Access – radial, femoral
  - LHC, RHC, arteriography
- Equipment used
- Complications
Left Heart Catheterization

- Advance catheter across the aortic valve
- Record pressures in the left ventricle
- Record pressures while pulling the catheter back across the aortic valve

Left Heart Catheterization
Left Ventricular End Diastolic Pressure (LVEDP)

![Graph showing LVEDP pressures](image-url)
Aortic Stenosis

Left ventriculography
Aortography

Coronary Angiography
Coronary Angiography

- Vessel size
- % stenosis or narrowing
- Tortuosity
- Calcification
- Collaterals
- Coronary dominance

Occluded RCA with left to right collateral flow
Right Heart Catheterization

• Catheter advanced through the right atrium, right ventricle into pulmonary artery
• Assess for pulmonary hypertension
• Pulmonary Capillary Wedge Pressure (PCWP)
• Cardiac output
  — Fick
  — Thermodilution

Percutaneous Coronary Intervention

• Balloon angioplasty
• Stenting
• Thrombectomy
• Atherectomy
  — Rotational
  — Orbital
Intravascular Ultrasound (IVUS)

- Catheter with ultrasound probe advanced over a wire
- Vessel sizing
- Plaque assessment
  - Minimal luminal area
  - Calcification
- Assessing stent expansion and apposition

IVUS
Fractional Flow Reserve (FFR)

- Measuring pressure gradient across stenosis at rest and after administering intracoronary adenosine with a pressure wire
- Used when angiographic severity of stenosis is uncertain
- $<0.80$ significant, intervention indicated
- $>0.80$ medical therapy
- iFR – instantaneous wave free ratio

Conclusions/Recommendations

- Summarize angiographic and hemodynamic findings
- Medical therapy
- Intervention
- Referral for surgical intervention
Thank You