Complicated Closure Of a Ventricular Septal Defect In a 25-year Old Immigrant With Still Reversible Pulmonary Arterial Hypertension

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OVERVIEW

• Introduction
• Case
• Hemodynamics
• Changes in physiology on cardiac bypass
• Conclusion
CASE

HPI: 25-year old immigrant from Eastern Europe p/w progressive dyspnea on exertion and fatigue

PMH: on digoxin for unknown heart condition

Vitals: BP 105/68 mmHg, HR 62/min

Exam: 4/6 pan-systolic murmur and a palpable thrill at the left lower sternal border

Labs: HGB 16.3 g/dl
RIGHT HEART CATHETER
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PAP 95/40 mmHg
mean PAP 56 mmHg
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PVR of 205 dyn.s/cm$^5$
RIGHT HEART CATHETER

PAP 95/40 mmHg
mean PAP 56 mmHg

PVR of 205 dyn.s/cm$^5$

SVR of 1465 dyn.s/cm$^5$
RIGHT HEART CATHETER

PAP 95/40 mmHg
mean PAP 56 mmHg

PVR of 205 dyn.s/cm\(^5\)

SVR of 1465 dyn.s/cm\(^5\)

Cl of 2.5 L/min/m\(^2\)
RIGHT HEART CATHETER

PAP 95/40 mmHg
mean PAP 56 mmHg

PVR of 205 dyn.s/cm$^5$

SVR of 1465 dyn.s/cm$^5$

CI of 2.5 L/min/m$^2$

Qp/ Qs = 4.5
Cannula for Cardioplegic Solution

- Aortic Cannula
- SVC Cannula
- IVC Cannula

INTRAOPERATIVELY

• Massive volume overload with distention of both ventricles

• Inability to unload the heart
• Uneventful postop course:
  - Nitric oxide
  - Sildenafil
  - PAP down to 42/25 mmHg
REMARKABLE POINTS

- Relatively normal life for 23 years
- No progression to Eisenmenger’s (contraindication to repair)
CONCLUSION

• PDA can easily be missed on Echo
Thank you

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Questions?