

Case Discussion and Management Challenges

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Disclosures

- None

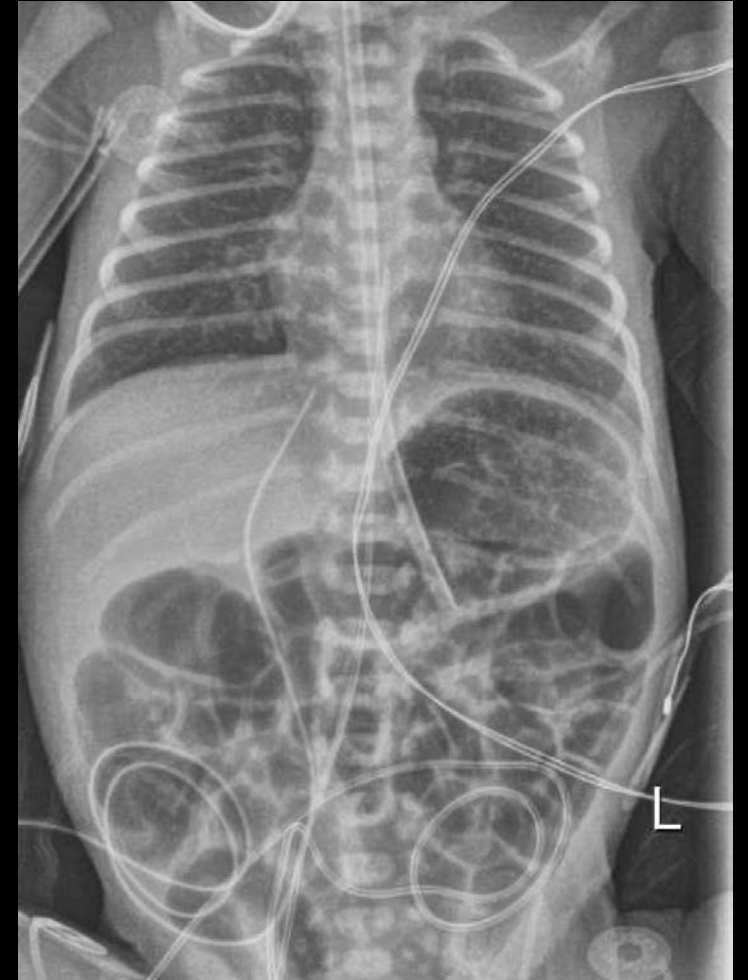
Case

32 1/7 week female, birth weight 1.2kg
(z=-3.6)

Prenatal dx HLHS (MA/AA)

Mother 15 years old, G3P1, prior
abruption

SpO₂ 95% on IMV CPAP on arrival to
CHONY (0 day of life)



Case

Mild RV dysfunction, mild TR

Posterior deviation of atrial septum, but gradient 5

Normal pulmonary vein anatomy

Ascending aorta 1-2mm, aortic atresia/mitral atresia

Options

Comfort care

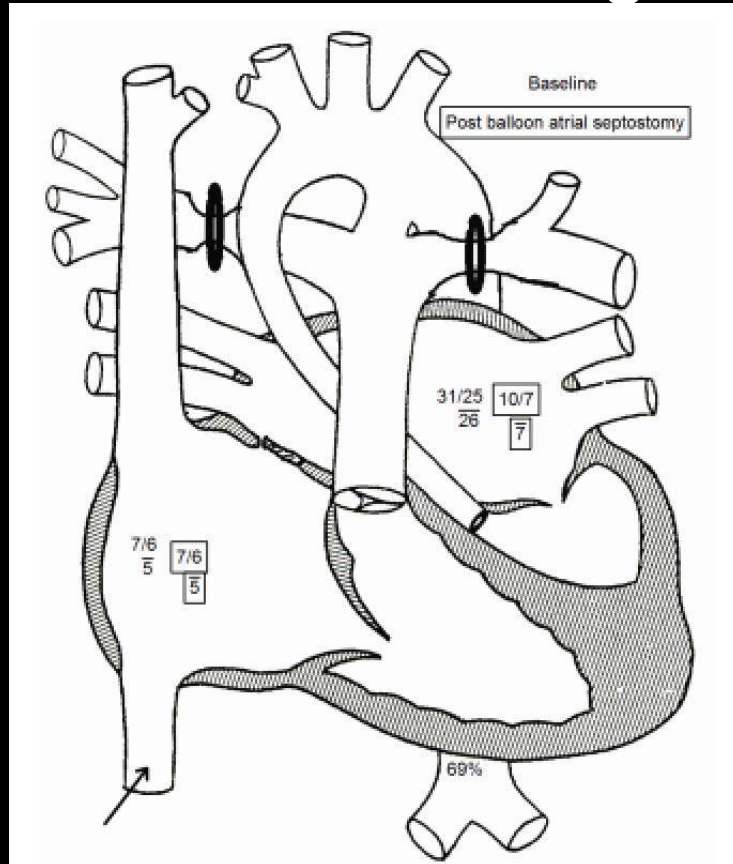
PA bands/Septostomy/Medical Hybrid

Stage 1

Course

Bilateral PA bands and PGE on DOL 8

Increasing hypoxia and transatrial gradient on echo



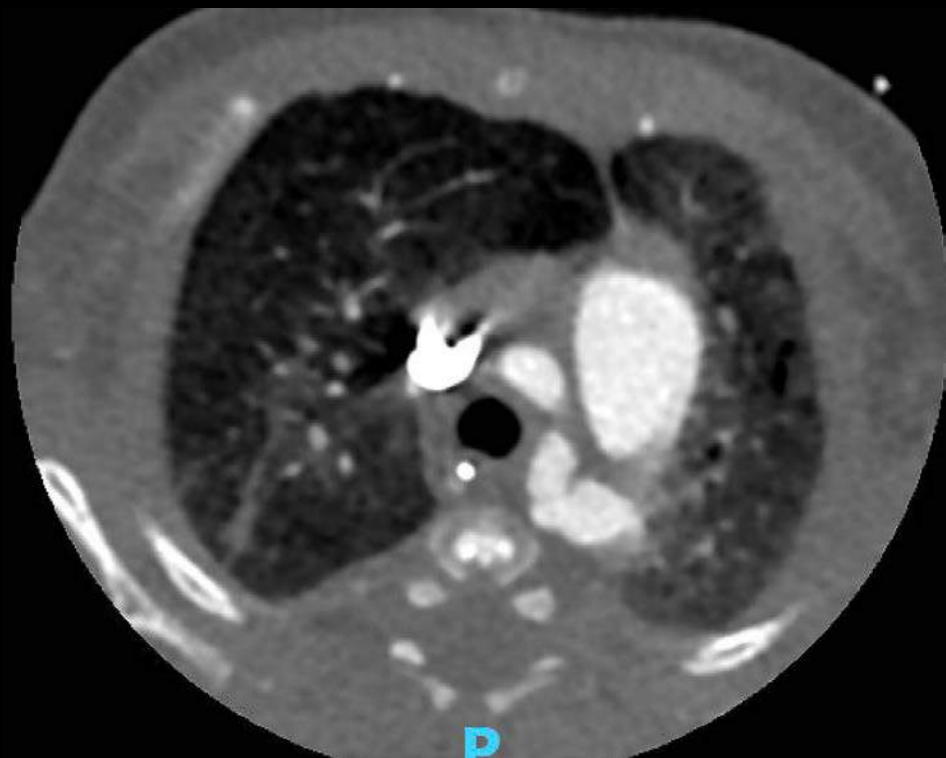
Course

Remained on CPAP, growing with ND feeds

Troponin elevation, concern for retrograde
coarctation

CT scan with hypoplastic branch pulmonary arteries

Course



What next?

PDA stent vs. Stage 1

When do you do it?

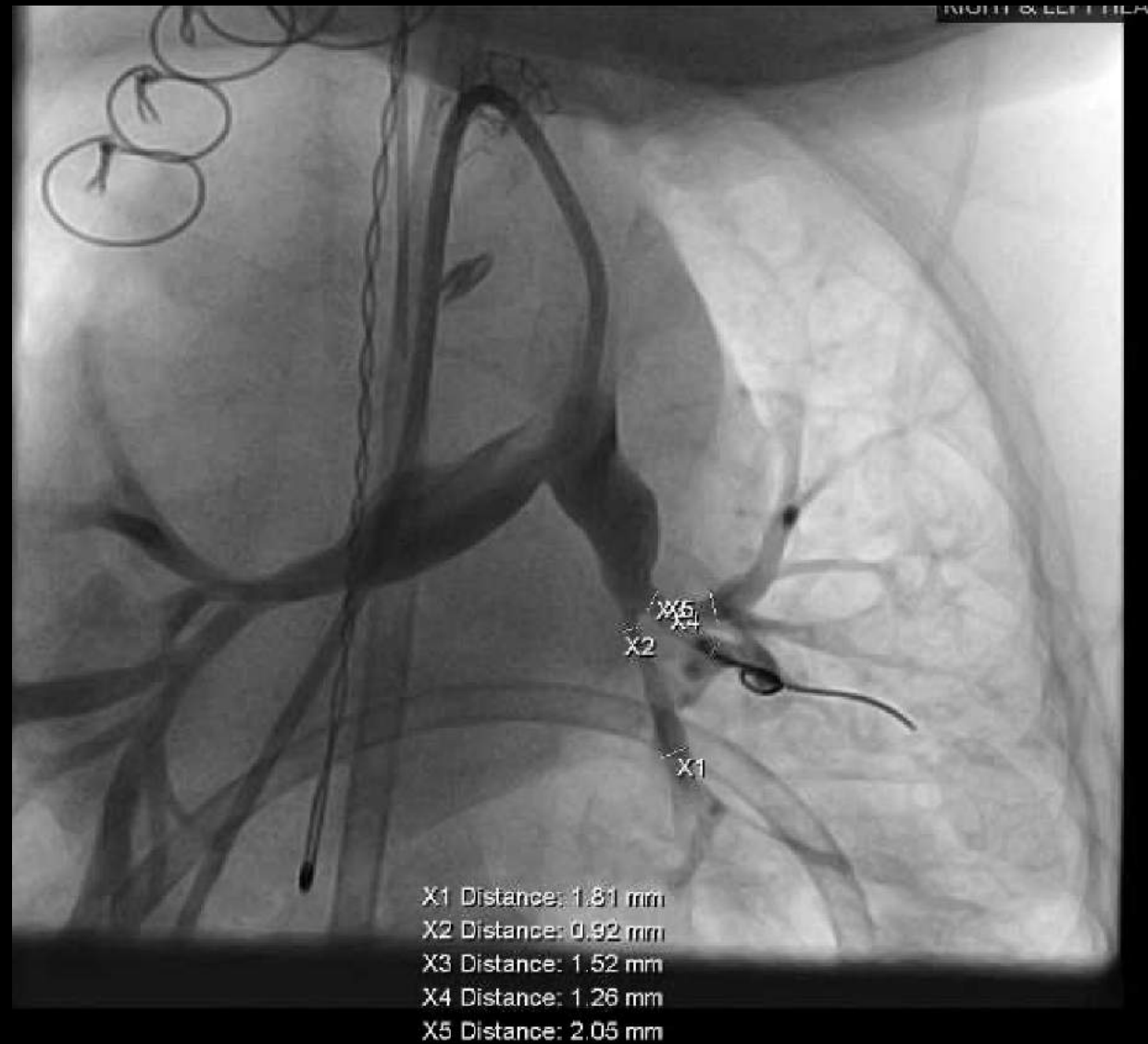
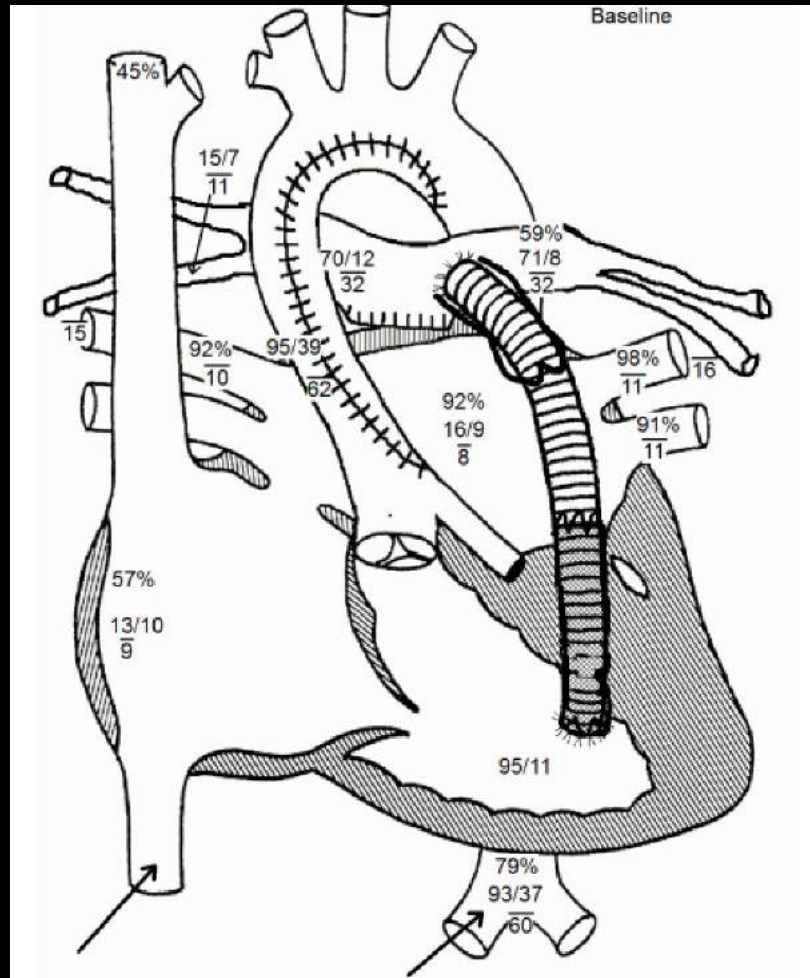
Course

Norwood/Sano at 2.5kg with PA debanding and bilateral PA plasty

Postop ECMO – 3 days, likely I/R lung injury, proximal Sano stent

Recovered, but persistent tachypnea 2 months postop

Cath 2 months post Norwood



What next?

Cath vs. surgery?

Hospice?

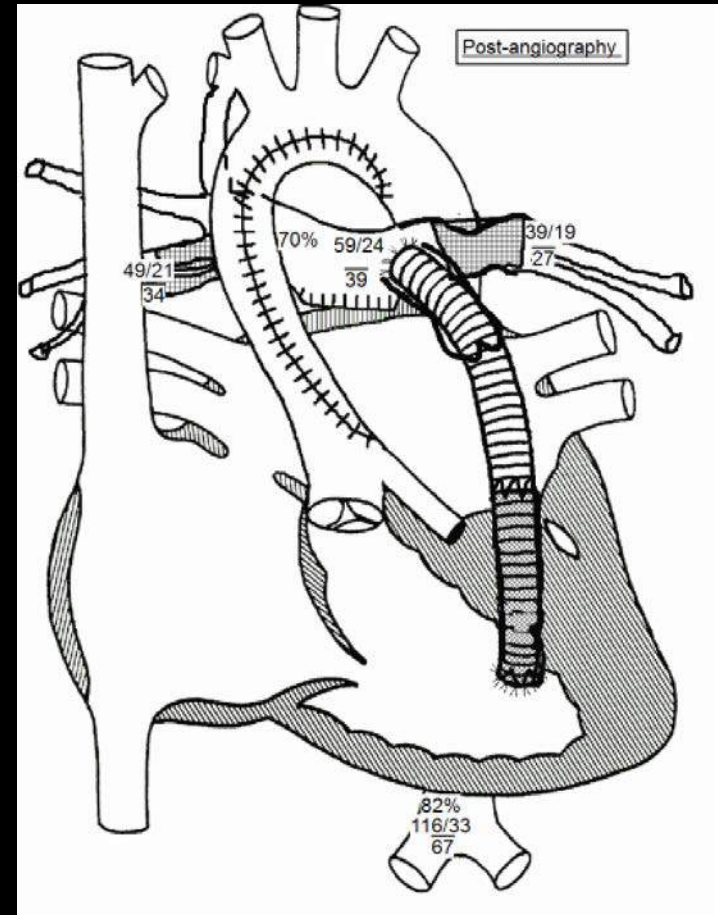
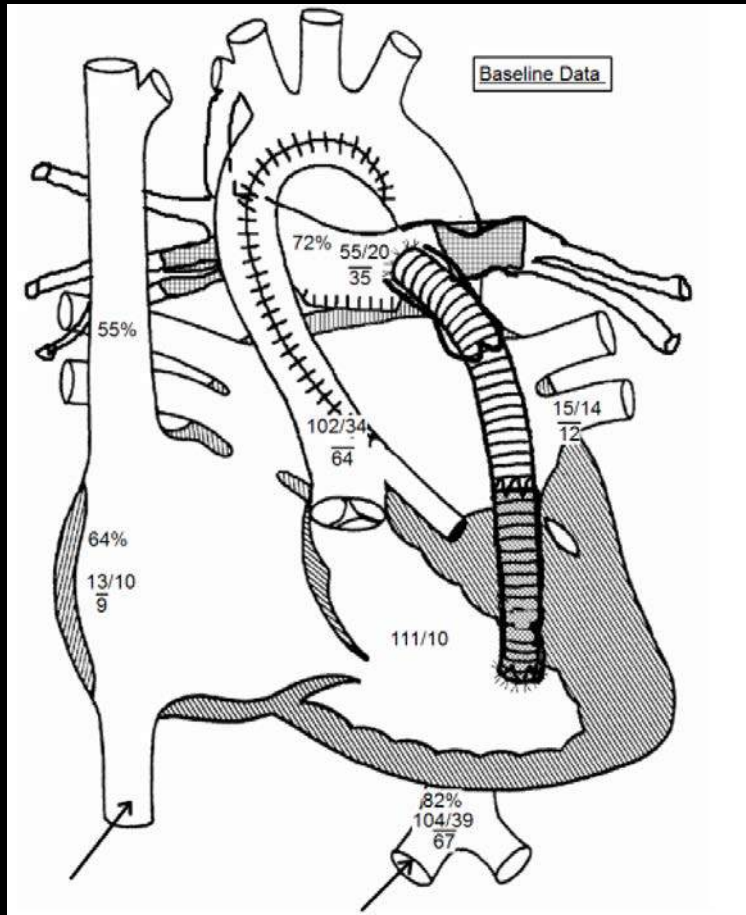
Course

Bilateral PA plasty with addition of mBTT shunt

Persistent tachypnea on 10L HFNC 25% 1 month postop: LPA stent, RML, RLL stents

Repeat cath 2 months after stenting (10 months of age) due to lung perfusion scan 32% to left lung and small LPA on echo

Cath



What next?

No further intervention

Transcatheter PA rehab

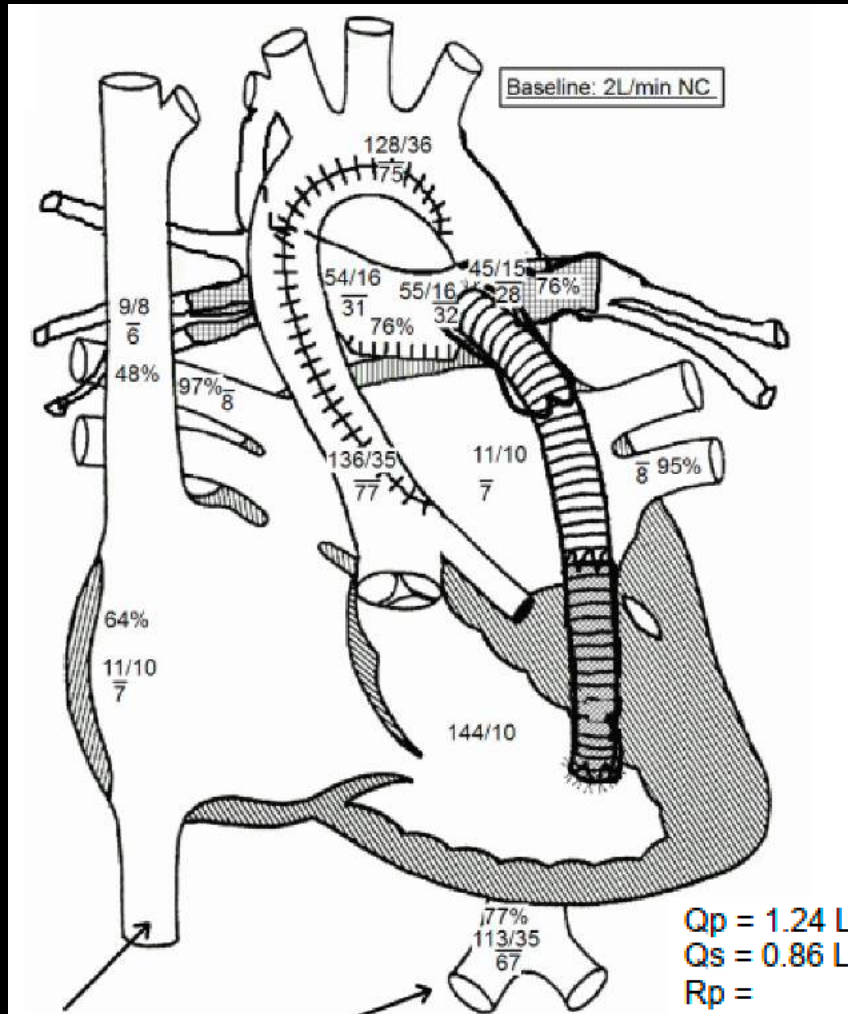
Surgical PA reconstruction
Shunt or single-lung Glenn?

Course

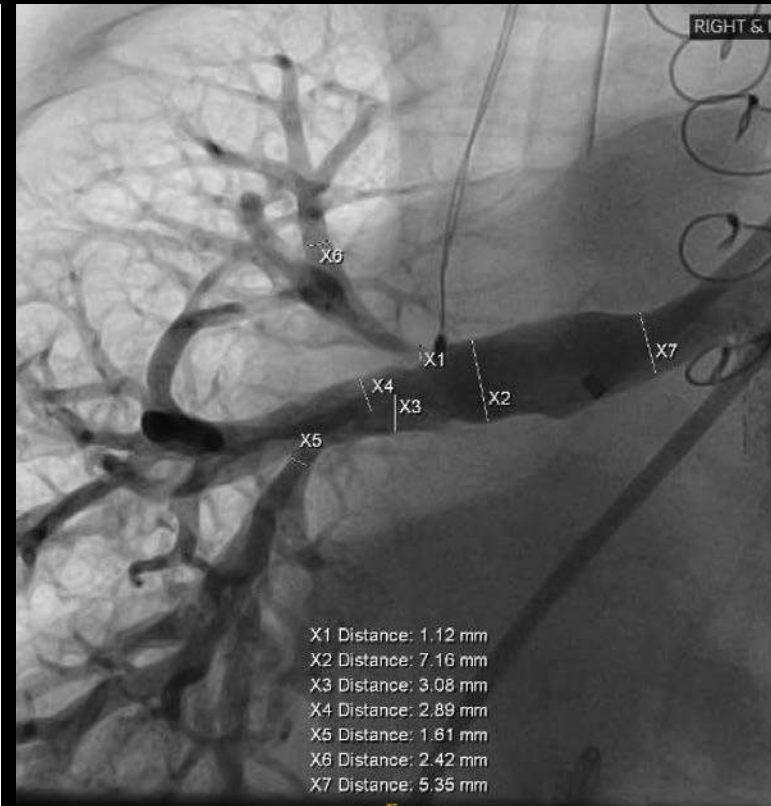
Weaned to 0.5LNC 21%, G-tube placed, and discharged to rehab

Readmitted 3 months later (1 yo) and interval cath performed

Cath



$Q_p = 1.24 \text{ L/min (3.54 L/min/m}^2\text{)}$
 $Q_s = 0.86 \text{ L/min (2.44 L/min/m}^2\text{)}$
 $R_p =$
 $R_s = 70.15 \text{ units (24.55 units} \times \text{m}^2\text{)}$
 $Q_p/Q_s = 1.45 : 1 \mid R_p/R_s =$



What next?

No further intervention

Transcatheter PA rehab

Surgical peripheral PA reconstruction

Shunt or single-lung Glenn?

Thank You!