

GIANT PULMONARY ARTERY PSEUDOANEURYSM

Elizabeth Flerlage DO, Raina Sinha MD, MPH, Harris Leopold MD, Olga Toro-Salazar MD, Dennis Mello, MD

Division of Cardiology and Cardiac Surgery, Connecticut Children's, Hartford, CT
"Case Vignettes"

Pulmonary artery (PA) pseudoaneurysms have been reported following interventional cardiac catheterization and therapy for symptomatic patients is warranted. However there is a paucity of literature regarding asymptomatic pulmonary artery pseudoaneurysms. Our case is a 20 year old male with a transposition of the great arteries, ventricular septal defect (VSD), and interrupted aortic arch (IAA) who underwent complete repair with an arterial switch operation and VSD/IAA repair as a neonate. He had subsequent surgical repair of supravalvar and branch pulmonary artery stenosis at one year of age. He also underwent several catheter-based interventions including a stent in the left pulmonary artery (PA) and balloon dilations of the pre-existing stent for LPA stenosis and balloon dilation of the RPA and MPA. At follow up, a cardiac MRI demonstrated a large pseudoaneurysm arising from the distal main PA (5.6 x 8 cm) (Fig 1,2), moderate RV dilation and pulmonary regurgitation. He was asymptomatic at this time. However, given the pseudoaneurysm size, we elected to proceed to the operating room for resection of the pseudoaneurysm and to address the pulmonary valve and branch pulmonary arteries. Intraoperative inspection revealed the pseudoaneurysm was due to a local perforation in the proximal PA with extension to the right PA (Fig 3,4).

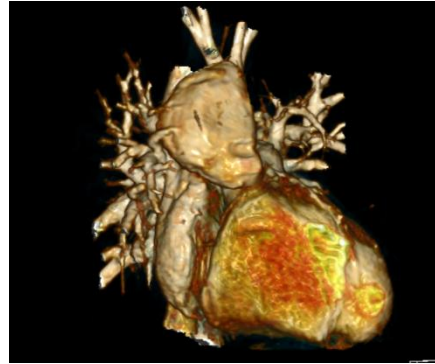


Figure 1 – MPA pseudoaneurysm



Figure 2 – stenotic LPA

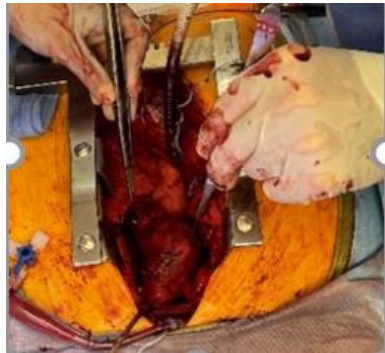


Figure 3 – preop PA pseudoaneurysm

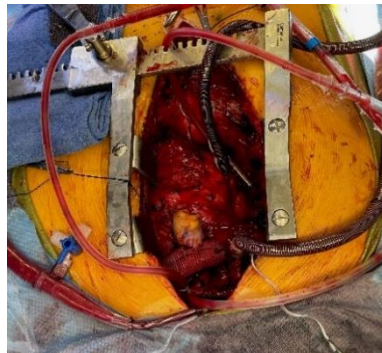


Figure 4 – postop repair

The left PA was very stenotic despite the stent. Therefore, the aneurysmal RPA and abnormal LPA were excised and an 18 mm dacron graft was placed hilum to hilum with a 25 mm pulmonary homograft in the RV outflow tract. Postoperative echocardiogram demonstrated a competent pulmonary valve and normal RV function. After

re-exploration for bleeding from the chest wall the next day, he was subsequently discharged one week later and is clinically well on follow up.