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# Aortopulmonary Window: A Rare Congenital Heart Defect

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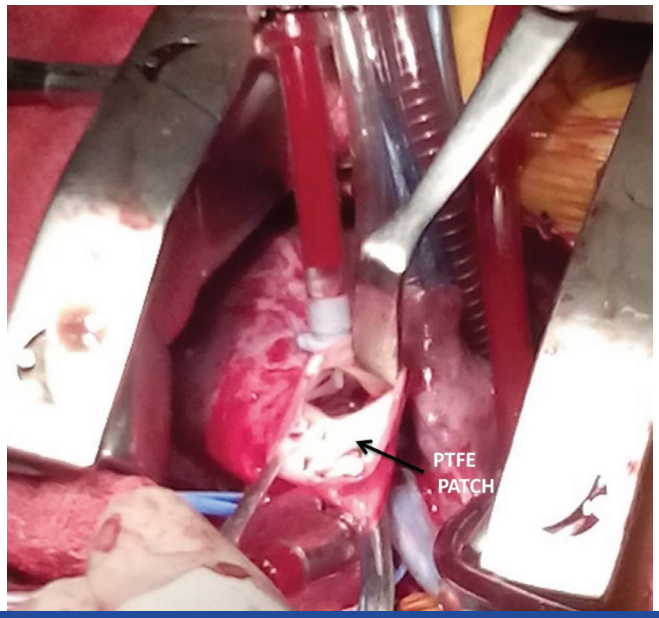
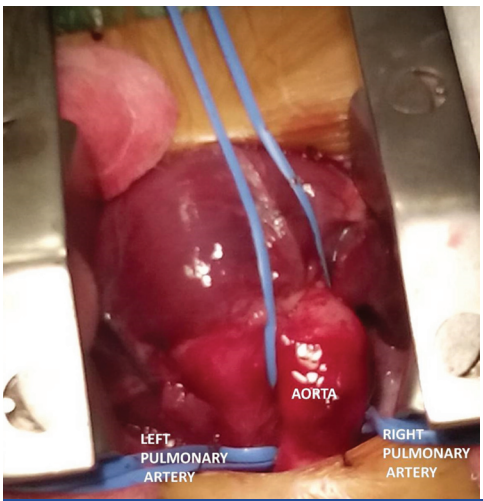
**Keywords:** Aortic septal defect, Aorticopulmonary window, Aortopulmonary fistula

A four-month-old female infant presented with complain of fast breathing and recurrent chest infection since birth. On clinical examination, there was bonding arterial pulse and wide pulse pressure along with systolic murmur present at 3rd intercostal space. A 2D echocardiography revealed situs solitus with dilated Left Ventricle (LV) and Left Atrium (LA) and presence of type 1 Aorto-Pulmonary (AP) window with left to right shunt. Consequently, patient was taken up for surgical correction. Intra-operative finding showed cardiomegaly with LA and LV enlargement with large AP window with having a separate pulmonary valve. There was no left superior vena cava, pulmonary stenosis, ventricular septal defect or patent ductus arteriosus. After standard surgical steps, patient was taken on cardiopulmonary bypass. Aorta, right pulmonary artery and left pulmonary artery were looped [Table/Fig-1]. Transverse aortotomy at the level of AP window and above the left coronary cusp was made [Table/Fig-2]. AP window was identified [Table/Fig-3]. Poly Tetra Flouro Ethylene (PTFE) patch closure of AP window was done [Table/Fig-4].

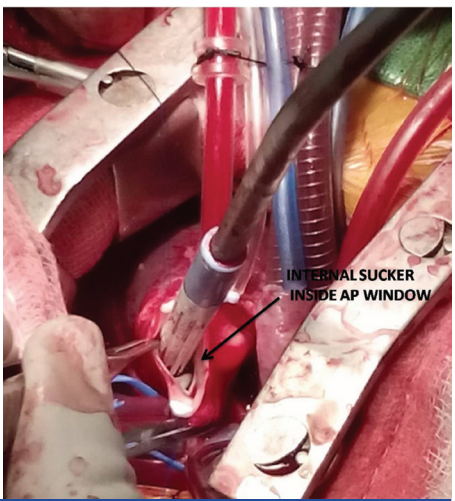
Aortopulmonary Window (APW) is a round, oval or sometimes spiral opening between the ascending aorta and pulmonary trunk, occurring as a congenital anomaly in hearts with separate aortic and pulmonary valves. Jacobs and colleagues from the Society of Thoracic Surgeons Congenital Heart Surgery Database Committee recommended the terms type 1-proximal defect, type 2-distal defect, type 3-total defect and intermediate defect [1]. The proximal type occurs in about 90% of APW cases [2]. APW is accompanied by other cardiac anomalies in about 50% of cases, of which interrupted aortic arch is the most frequently observed major associated lesion [3]. Differential diagnoses include large patent ductus arteriosus, truncus arteriosus and in patients beyond the infant age group, ventricular septal defect with aortic regurgitation and ruptured sinus of valsalva aneurysm. APW is a rare malformation occurring in about 0.2% of cases of congenital heart disease [4]. In the absence of surgical correction, mortality in the first year of life has been estimated at 40% [5]. The probability of surgical cure depends on age at operation and level of pulmonary vascular resistance at the time of operation. Symptomatic infants with APW should be operated on promptly when the diagnosis is made. Elective repair is advised before age 3 months.




**[Table/Fig-4]:** Intraoperative photograph of the patient showing PTFE patch closure of the AP window.








**[Table/Fig-1]:** Intraoperative photograph of the patient showing looped aorta, right pulmonary artery and left pulmonary artery. **[Table/Fig-2]:** Intraoperative photograph of the patient showing transverse aortotomy. **[Table/Fig-3]:** Intraoperative photograph of the patient showing AP window.

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