A Rare Form of Transposition of Great Arteries: Two Cases of Posterior Aorta

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Introduction: Transposition of the great arteries (TGA) with a posterior aorta is a very rare form of TGA characterized by a right-sided and posterior aorta arising from the right ventricle.

Case reports: A 3 days old male patient with a 3.2 kg of body weight admitted to the emergency department with cyanosis and tachypnea. The oxygen saturation was 78%. There was a 2/6 murmur on left sternal side on physical examination. The second case was a 2 months old infant weighing 4.3 kg who admitted to the clinic with tachypnea. Similarly on echocardiographic evaluation of both patients, there was a concordant atrioventricular but discordant ventriculoarterial relation. The relation between aorta and pulmonary artery was normal where aorta was posterior and to the right of the pulmonary artery. A doubly committed ventricular septal defect, patent foramen ovale and systemic pulmonary hypertension were demonstrated in both cases. Aortic arch hypoplasia was present additionally in the second case. An arterial switch without a Lecompte manoeuvre, pericardial patchplasty of VSD, PDA division was performed in both patients where additionally aortic arch reconstruction was performed in second patient. Moderate degree pulmonary stenosis was demonstrated on follow up echocardiographic evaluations of the second patient.

Conclusion: TGA with posterior aorta is a rare entity, without a known reported incidence. We want to emphasize that the diagnosis of TGA can be difficult when pulmonary trunk is anterior and also during the operation although a lecompte manoeuvre was not needed, the posterior location and the length of the left coronary artery can be an obstacle in its transfer.