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## A Rare Case of Truncus Arteriosus Type IV

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Truncus arteriosus is a congenital vascular heart anomaly in which conotruncal separation is incomplete and always accompanied by ventricular septal defect (VSD). Collett and Edwards classified this disease in 4 types according to the position of the pulmonary arteries. Type IV is characterized by pulmonary atresia; pulmonary arteries arising from aortopulmonary collaterals rather than the common trunk. We discuss a rare case with type IV truncus arteriosus that came to our emergency department. A 20-year-old male patient came to our hospital with hemoptysis. It was found out that he was followed-up with a congenital heart disease previously. The laboratory results only showed increased hemoglobin and hematocrit levels. He had a thorax computerized tomography (CT) and CT-angiography taken. These images showed that the pulmonary arteries were absent and there was only an aorta taking root from the main trunk coming out of the ventricles. There were a couple of collateral vessels with 3 millimeters diameter arising from the descending thoracic aorta, supplying the pulmonary vascular bed. Echocardiography showed a 15 mm-wide VSD, a common trunk collecting blood from both ventricles, and no pulmonary arteries branching from this trunk. Suprasternal echocardiography showed a hypoplastic pulmonary bed and tortuous collaterals arising from the descending aorta to supply the pulmonary circulation. So it was concluded that the patient had truncus arteriosus type IV. Truncus arteriosus occurs in less than 1 out of every 10,000 births and accounts for about 2% of congenital cardiac diseases. Patients present with cyanosis or congestive heart disease. Collett and Edwards classified this disease in 4 types according to the position of the pulmonary arteries in 1949. The most common is type I in which a single main pulmonary artery arises from a common trunk. In type II and III, there is no common pulmonary artery. The left and right pulmonary arteries arise independently from posterior aspect of the common trunk in type II, or they arise from either side in type III (the least common type). In diagnosis; chest radiography, echocardiography, angiography, cardiovascular magnetic resonance imaging and CT/CT angiography are useful imaging methods. CT angiography is one of the most preferred techniques, since it gives great information about anatomy, branching of the common trunk, abnormal collateral localization, and extra cardiac abnormalities. Recently some authors prefer not to use the term type IV because there is no connection between the heart and pulmonary arteries, but rather classify as pulmonary atresia.

**Keywords:** CT angiography, heart disease, truncus arteriosus