

Abnormalities of systemic venous connections in pediatric patients undergoing congenital cardiac surgery

Muhammet Akyuz¹, Onur Işık¹, Ilker Mercan¹, and Meltem Cakmak¹

¹Izmir Tepecik Training and Research Hospital

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Abstract

PURPOSE: Systemic venous anomalies encompass a wide range of cardiovascular anomalies. Systemic venous anomalies are relatively infrequent and, under normal circumstances, asymptomatic, but may be clinical importance in cardiac surgery. This study aims to investigate whether systemic venous anomaly would have an effect on the any surgical planning. **METHODS:** We included a total of 525 consecutive patients (310 males, 215 females) who underwent open heart surgery for congenital heart disease. Patients were classified due to type of systemic venous anomalies. Demographic data and outcome data were retrospectively analyzed. **RESULTS:** Systemic venous anomaly was observed in 40 (13,25%) patients. The mean age and weight of the patients was 11.5 months (range, 1 day to 18 years), 9.3 kg (range, 500 gr-65 kg) respectively. Preoperative diagnosis was obtained in 14 / 40 (37.5%) patients with echocardiography, 12 / 40 (30%) with computed tomography scan, in 7 / 40 (17.5%) patients with conventional angiography and in 7/40 (17.5%) patients during surgery. A persistent left superior vena cava is the most common systemic venous anomaly (24 / 40 (60%) patients) and in others IVC interruption, retroaortic innominate vein and connection of PSSVC-LA was determined 7 / 40 patients (17.5%) , 4 / 40 patients (10%) and 4 / 40 patients (10%) respectively. No operative morbidity and complication associated with systemic venous anomalies was seen. **CONCLUSION:** Knowledge of the different course of the systemic venous anatomy prior to surgical intervention is important for the safe execution of any cardiac procedure.

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