

**Asymptomatic interarterial course of the left coronary artery from the right sinus of Valsalva. Which management should be recommended?**

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Aberrant course of the left coronary artery (LCA) originating from the right coronary sinus of Valsalva (RCSV) and coursing between the aorta and pulmonary artery is a rare coronary anomaly. On forced exercise there is a risk of compression of the LCA causing ischemia or even sudden cardiac death. In symptomatic patients surgery is recommended. We report 2 cases of asymptomatic adolescents.

Case 1: M.P. complained at the age of 12 years of uncharacteristic chest-pain on exercise but also at rest. Echocardiography showed origin of the LCA from the RCSV taking course to the left between the aorta and the main pulmonary artery which was confirmed on MRI. On exercise test he tolerated a peak strain of 4.1 W/kg without any symptoms or electrocardiographic changes. Five minutes after the exercise test he complained of right thoracic pain which was related to respiration. On stress MRI with adenosine there were no perfusion defects nor regional wall motion abnormalities.

Case 2: S.S. is a 14-year-old adolescent competitive ice-hockey player without any complaints on maximal exertion. He had echocardiography for his annual sports evaluation which showed the above mentioned coronary abnormality. On exercise test there were no symptoms or electrocardiographic changes at a peak-strain of 4.7 W/kg. The systolic blood pressure rose to 227 mmHg. Competitive sports were denied. Surgical treatment was asked for by the parents in order to continue participation in training and tournaments.

Besides conservative treatment there are three surgical options, reimplantation, coronary artery bypass and unroofing (if anatomically feasible). We decided in an interdisciplinary discussion with the surgeons not to operate due to the complexity in case 1 and the lack of symptoms in case 2 unless a slitlike orifice could be demonstrated. However, competitive sports were forbidden.

Summary. Aberrant origin of the LCA from the RCSV is well recognized on echocardiography and an intramural course might be identified. In symptomatic patients surgery is indicated with unroofing of the coronary artery as the most elegant method when possible. In asymptomatic patients surgery remains a question of discussion.