Bland-White-Garland syndrome in a 39-year-old lumberjack

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Bland-White-Garland syndrome is a rare and serious congenital heart disease. It occurs in 1:300,000 live births and represents 0.24% to 0.46% of all congenital cardiac diseases in infants born alive. In this syndrome one of the left main branches (usually the left anterior descending artery [LAD]) originates from the pulmonary trunk instead of the aortic root. Most patients with Bland-White-Garland syndrome die in early infancy. Those who can develop some collateral circulation survive and are likely to suffer from severe heart ischaemia resulting in heart failure. We present a case of a 39-year-old man who underwent ventricular fibrillation, was successfully resuscitated, diagnosed with anomalous LAD originating from the pulmonary trunk, and was operated on in our Department. Before hospitalisation, for the previous 15 years, he had been working extremely hard as a lumberjack. Coronary angiography showed LAD anomaly and large collaterals from the right coronary artery (Fig. 1A). He was urgently operated on: proximal LAD ligation and off-pump left internal mammary artery-LAD (LIMA-LAD) bypass grafting (Fig. 1C) were performed. The immediate Doppler flow measure showed excellent results: flow over 200 mL/min and pulsation index < 2. The postoperative course was uneventful. Postoperative computed tomography angiography scan confirmed graft patency and proximal LAD occlusion (Fig. 1B). The patient was discharged home on postoperative day 6. He resumed his professional work without any difficulties. This complicated case shows that Bland-White-Garland syndrome patients can occasionally survive into their late thirties without symptoms. Urgent diagnosis and off-pump coronary artery bypass grafting led to an excellent outcome in this challenging case.

Figure 1. A. Preoperative coronary angiogram showing anomalous origin of the left anterior descending artery (LAD) and large collaterals from the right coronary artery (RCA); B. Postoperative computed tomography angiography scan showing patent left internal mammary artery-LAD (LIMA-LAD) graft and occluded proximal LAD; C. Intraoperative view: RCA, LAD, and great collaterals