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**Incidence of congenital coronary artery anomalies in young patients with a structurally normal heart.**

*Moench K.A.H., Schneider H.E., Krause U.J., Kriebel T.A., Paul T.  
Georg-August-University, Goettingen, Germany*

Background: Congenital coronary arteries anomalies (CCAA) have been described with an incidence of 1.3% in the adult population, and may result in sudden cardiac death. There is lack of data concerning prevalence of CCAA in young patients with an otherwise structurally normal heart.

Patients and Methods: Between 2003 and 2010, we retrospectively analysed selective coronary artery angiographies of 264 consecutive patients less than 21 years of age with an echocardiographically structurally normal heart. All patients underwent selective coronary angiographies within a protocol of our institution prior to catheter ablation for supraventricular reentrant tachycardia. Special attention was given to abnormal origin, course or number of coronary arteries as well as stenosis or abnormal connections.

Results: Median age was 13.4 (2.1-21.3) years, median weight 48.8 (14.6-124) kg. CCAA were found in 9 of 264 (ca 3.4%) of patients. These included coronary artery fistula in 4 patients, anomalous origin of the circumflex artery from the right coronary artery in 3 patients, absent circumflex artery in 1 patient, and a solitary coronary artery in 1 patient, respectively. None of the CCAA required an intervention. No complications after coronary angiography were observed.

Conclusion: Isolated CCAA were more prevalent in our young patients than reported before.