Transcatheter closure of right coronary artery fistula to the right ventricle

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Introduction: Coronary artery fistula (CAF) is an uncommon anomaly usually congenital but can be acquired. It accounts around 0.2-0.4% of congenital cardiac anomalies. Although, most of the patients are asymptomatic, some may present with Congested Heart Failure (CHF), infective endocarditis, myocardial ischemia (which may present as chest pain or ventricular arrhythmias due to steal from the native coronary vessels) or rupture. Some are picked up with an incidental heart murmur. In the past, surgical ligation was the only option in the management of CAF, but since 1983, transcatheter closure of CAF has been increasing as an alternative to surgery. Elective closure of significant CAF in childhood has been advocated to prevent later complications.

Method and result: We report a 3 year old boy with a large right coronary artery fistula to the right ventricle who had a successful transcatheter closure. Our case is differs from other CAF in that the fistula was communicating the Right Coronary Artery (RCA) itself to the Right Ventricle (RV).

Conclusion: transcatheter closure of CAF in children is a safe alternative procedure to surgical ligation specially if the fistula is communicating the Right Coronary Artery (RCA) itself to the Right Ventricle (RV).