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## The role of advanced cardiac imaging is diagnosis of complex adult's congenital heart disease

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**Background:** The recent improvements in non-invasive, cross-sectional cardiovascular imaging modalities (MR and CT) have resulted in a change in our approach to the assessment and follow up of patients with Congenital Heart Disease (CHD). Currently, clinical practice is to use echocardiography in all cases of CHD. However, echocardiography can be technically difficult to perform, providing sub-optimal imaging. In these situations, we use cardiovascular MR to further define CHD anatomy and physiology. This is particularly important prior to and following corrective surgical and interventional procedures.

**Method:** Sequential segmental analysis is illustrated using different cases from adults with CHD. Cardiovascular MR is critical to the non-invasive assessment of ventricular/valvular function and blood flow through haemodynamically significant lesions and shunts. We specifically use MDCT in the initial diagnostic assessment of great vessel anatomy in young patients, especially in circumstances where functional information is not required. Finally, the use of cardiac catheterization/angiography if haemo-dynamic information is required (pulmonary vascular resistance studies) or if there is a high degree of suspicion of coronary artery abnormalities.

**Conclusion:** This approach can improve non-invasive diagnosis and reveal detailed anatomy that is important for both clinical decision-making and surgical planning of adults with CHD.

## **Biography**

He worked in Arab Board Internal medicine in – (KFSH) King Faisal Specialist hospital –Riyadh-Saudi Arabia from 1996 to 2001 and he has Canadian Fellowship in Cardiology- (UBC) - university of British Columbia (2001-2004), Canadian Fellowship in Adult Congenital cardiology- (UOT) University Of Toronto (2004-2005), Canadian Fellowship in Adult Echocardiography – (UOT) University Of Toronto (2005-2006), Canadian Fellowship in Cardiac Magnetic Resonance - (UOC) University Of Calgary (2006-2007) and American College of Cardiology (ACC) - Cardiac CT angiography Training –(Riyadh May-2010). He is currently working as supervisor of cardiac services in Jeddah, dedicated for the establishment of cardiac services pathways including Cardiac Imaging and ACHD.

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