

The Role of MRI/A in Congenital Heart Disease in Neonates and Children - One Year Experience

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Background: A less invasive diagnostic approach to congenital heart disease utilizing echocardiography and cardiac MRI/A (magnetic resonance imaging/angiography) is becoming the standard practice. Catheterization is invasive and exposes the patients to ionizing radiation, which is major concern in children. We propose that cardiac MRI can be safer and effective alternative.

Methods and Results: A retrospective analysis of imaging data in single center experience from Nov 2009 to Oct 2010. 54 subjects younger of 10 years old with congenital heart disease underwent MRI/A (age: 2 days-10 years mean age: 47 months, weight: 2.2-30 kg mean of 14 kg).

The studies were supervised by dedicated team of cardiologist and radiologist. 28 patients (52%) underwent operation based on the Cardiac MR results. The operative finding were identical to MRI/A finding one patient was send for interventional catheterization. 26 patients (48%) were found with no indication for operation at the time of the Scan. Cardiac MRI/A were recommended as a follow up in the future for 12 patients from the non operative group (46%) No adverse events were noted in all 54 patients.

Conclusion: Cardiac MRI/A is effective, safe and reliable modality for evaluation congenital heart disease.