Spectrum of congenital aortic arch anomalies, evaluation by multidetector CT angiography

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Abstract

Objective: Imaging of the heart and the great vessels is the keystone in diagnosis of their anomalies. Multidetector CT angiography is the gold standard method of aortic arch imaging. It allows assessment of the anatomy of the congenital arch anomalies. In our study, we stressed the importance of multidetector CT angiography (MDCTA) in the management of these anomalies.

Patients & methods: 47 patients, 25 males and 22 females, were enrolled in this study, from Cairo university children’s hospital over 15 months, full history and examination were obtained, echocardiography was done and revealed various aortic abnormalities then multidetector CT angiography was done for confirming the diagnosis.

Results: Our study included 47 patients, their ages range (5 days-11 years). The following anomalies were diagnosed: hypoplastic aortic arch, aortic coarctation with single or multiple narrowed segments, mild aortic arch isthmic narrowing, patent ductus arteriosus with right sided aortic arch and mirror imaging branches or aberrant left subclavian artery, interrupted aortic arch, arteriovenous connection between right common carotid artery and internal jugular vein, global aortic hypoplasia, aneurismal dilatation of ascending aorta and aortic arch secondary to valvular aortic stenosis and aortopulmonary window.

Conclusion: Multidetector CT angiography is essential in pre and postoperative anatomical evaluation of all arch anomalies, as well as the associated lesions.

Biography

Hadeel Seif has completed his MD at the age of 36 years from Cairo University, Faculty of Medicine. She is a lecturer of radio diagnosis. She has published more than 8 papers in local and international Journals.