البحث السادس

(بحث مشترك منشور مشتق من رسالة علمية)

عنوان البحث :

دور التصوير بالأشعة المقطعية متعددة المقاطع في تقييم تشوهات القلب المركبة في مرضي الأطفال.

The Role of Mlti Slice Computerized Tomography (MSCT) in Evaluation of Complex CHD in Pediatric Patients

المشاركون فى البحث :

اد. أحمد محمود عبد المقتدر* - د. ياسر جمعة محمد** - **د. سيد علي أمين*** - ط. سمر نادي محمد الفخراني*

قسم طب الأطفال – جامعة الفيوم* –قسم أمراض القلب والأوعية الدموية– جامعة عين شمس**

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Abstract

Objectives: : The aim of this study is to evaluate the feasibility and utility of low-dose MSCT angiography as a noninvasive method for detecting anatomic structures and combined anomalies in complex congenital heart diseases.

Methodology: A total of 50 MSCT examinations of pediatric patients (20 boys, 30 girls; mean age 11 months; range 9 days to 4.5 years) who underwent echocardiography and/or cardiac catheterization that resulted in none conclusive results regarding anatomical details of the heart and major blood vessels.

Results: The results of the present study revealed that, MSCT is an adequate non-invasive method for evaluation of complex congenital heart diseases especially the vascular anomalies. Regarding the accuracy and efficacy of MSCT in evaluation of CHD, It was found that there was a statistically highly significant difference between MSCT and ECHO accuracy in assessment of complex CHD. Regarding pulmonary arterial tree, there was a statistically highly significant difference between MSCT and ECHO in evaluation of patient pulmonary arterial tree (p value < 0.0001, with 28%),also regarding aortic arch(p value < 0.0001, with 56%). In this study, the use of MSCT has allowed successful evaluation of a variety of coronary artery anomalies and assessment of lung and airway abnormalities.

Conclusion: MSCT is an accurate non-invasive method for evaluation of complex CHD especially in visualizing small structures, like coronary arteries in routine, including in neonates and infants, at a fast cardiac rhythm, and is helpful in evaluation of tracheal and bronchi compression.

رئيس القسم **عميد كلية الطب**

أ.د /نشوة ممدوح سمرة **أ.د/خالد أحمد الخشاب**