

World Health Organization and World Heart Federation Echocardiographic Criteria for the Diagnosis of Rheumatic Subclinical Carditis: a Comparative Study

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Background:The World Health Organization (WHO) 2004 developed criteria for diagnosing rheumatic subclinical carditis depending only on Doppler echocardiographic criteria of the mitral and aortic valves. In 2012, the World Heart Federation (WHF) developed other criteria depending on both Doppler and morphological features of the same previously mentioned valves. This study aims at comparing the criteria for the diagnosis of subclinical carditis according to the WHO and WHF criteria in patients documented with acute rheumatic fever according to modified Jones criteria.

Methods: This is a retrospective study that included 152 Egyptian patients 4-18 years presenting with acute rheumatic fever and diagnosed as having subclinical carditis according to the 2004 WHO criteria over an 18 months duration from January 2014 to June 2015. Echocardiography was performed by pediatric echocardiographers experienced in rheumatic heart disease in a specialized rheumatic fever clinic. Data were retrieved from the computer system and the WHF criteria for the diagnosis of subclinical carditis were applied on them.

Results: By applying WHF criteria, 3 (2%) had definite RHD, 23 (15%) patients had borderline RHD, whereas a total of 126 (83%) patients were considered to have normal hearts.

Conclusion: There is a great discrepancy in the diagnosis of rheumatic subclinical carditis between the WHO and WHF echocardiographic criteria. Given the fact that these patients are already diagnosed as acute rheumatic fever, a dilemma is created that needs further studies to establish a basis for a reliable diagnosis of subclinical carditis where patients in high risk areas might be missed.