

Abstract

This research was a cross sectional descriptive research done in Wad Medani Cardiac Centre in Aljazeera State during the period from June 2018 up to March 2019. The problem of the study was that mitral valve disease is the second most common valvular heart disease and there is lack of previous studies in this field in Sudan. The aim of this research is to study mitral valve stenosis among adult in Aljazeera State using echocardiography. Transthoracic scan was done among fifty patients, twenty one of the them were females and the remainig were males by using vivid7 echocaradiographic machine and phased array probe three MHz. Data was collected using data collection sheet which included many variables: patient number, leaflets, commissures, anterior mitral valve leaflet, posterior mitral valve leaflet, chordae, atrial fibrillation, mitral valve area, pressure half time, mean pressure gradient and pulmonary artery systolic pressure. The data was analyzed using SPSS and word office7.

The results showed that nearly all of the patients of the study had moderate mitral valve stenosis, the correlation between the stenosed mitral valve orifice and all of the measurements used-which included the pressure half time, the mean pressure gradient and the pulmonary artery systolic pressure-was negative and indirect. The effectiveness of these measurements was as follows: Planimetry, pressure half time and pulmonary artery systolic pressure level₁ whereas the mean pressure gradient level₂. This is because the correlation coefficient between the mitral valve area and the pressure half time was 0.885, the correlation coefficient between the mitral valve area and the pulmonary artery systolic pressure was 0.825, and that between the mitral valve area and the mean pressure gradient was 0.57.

Future studies using large samples and other techniques are highly recommended to ensure the effectiveness of the measurements used.