

Prevalence of cardiac arrhythmias among chronic obstructive pulmonary disease patients admitted to Jimma Medical Center- Wondu Reta Demissie - Jimma University, Ethiopia

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Abstract

Aim: Cardiac arrhythmias are common in COPD patients and are a major cause of morbidity and mortality. The present study aimed to determine the prevalence of cardiac arrhythmias among patients with COPD.

Method: The study was conducted on COPD patients visiting chest clinic of Jimma Medical Center (JMC) located at Jimma town, South west Ethiopia from May 18 to August 18, 2017 G.C. A hospital based cross-sectional study was conducted among 80 sampled COPD patients; and an investigation for 12 Lead resting supine ECG was performed. The results of ECG patterns and other variables were entered into EPI data (3.1) and exported to SPSS (20) for further analysis.

Results: The prevalence of arrhythmia accounted for 50% and the magnitude of its types were classified as Sinus origin arrhythmia (30%) specifically [Sinus bradycardia (16.3%), sinus tachycardia (8.8%) and sinus arrhythmia (5.0%)], ectopic arrhythmia (20%) specifically [Premature ventricular contraction (7.5%), atrial fibrillation (6.3%), premature atrial contraction (3.8%), atrial flutter (1.3%) and multi focal atrial tachycardia (1.3%)], conduction block arrhythmia (23.8%) specifically [Bundle branch block (17.5%) for instance: Complete right bundle branch block (3.8%), complete left bundle branch block (5%), incomplete right bundle branch block (7.5%), incomplete left bundle branch block (1.3%), hemi fascicular block (5%)] and atrioventricular

block (1.3%)], and other arrhythmia (11.4%) like prolonged QTc interval (8.8%) and pre-excitation syndrome or Wolf Parkinson white syndrome (2.5%) as a single COPD patient presented with more than one arrhythmias.

Conclusion: Routine ECG investigation should be performed at the setup to screen and initiate early management of Cardio vascular diseases including cardiac arrhythmias for better prognosis COPD patients which was inevitable and very common.