ABSTRACT

TITLE: “RELEVANCE OF SERUM BNP LEVEL IN THE STUDY OF HEART FAILURE WITH PRESERVED EJECTION FRACTION AT TERTIARY HOSPITAL”

INTRODUCTION: Heart failure with preserved ejection fraction (HFpEF) is becoming a more common diagnosis as the prevalence of patients with hypertension, diabetes and advancing age increases. HFpEF is now the cause of clinical heart failure in approximately 50% of patients, a frequent cause of hospitalization, and is associated with significant morbidity and mortality. In addition to clinical assessment, the severity of heart failure is assessed by measuring B-type natriuretic peptide (BNP), a peptide hormone released by cardiomyocytes in response to increased wall stress in patients of HFPEF”. It is planned to study all such cases of HFpEF (diagnosed with ECHO) and relevance of raised brain type natriuretic peptide (BNP) levels with that.

OBJECTIVE: “To study the relevance of serum B type Natriuretic peptide levels in patients presenting with acute left heart failure with preserved ejection fraction”.

METHODS: 50 patients presenting in Emergency Department (ED) or Inpatient Department (IPD) and Intensive care unit (ICU) with diagnosis of Diastolic dysfunction were taken in this study. Detailed 2D Echo, BNP levels along with routine blood samples were taken. The study took place for a period of 18 months. Statistical analysis was done using Percentage, Standard error of proportion and chi-square test.
RESULTS: In present study 50 HFPEF patients were taken whose mean age group was 63.60 years and majority of the patients were female (62%) and were overweight with mean BMI of 25.24 Kg/m² and had associated comorbidities in the form of hypertension (68%), diabetes mellitus (62%). In the present study, BNP levels were higher in majority of the patients with significant association to all the parameters like age, sex, comorbidities, LA size (p - 0.001), Diastolic Dysfunction type (p – 0.033) and NYHA grade.

CONCLUSION: The present study of 50 cases of HFPEF was aimed at highlighting BNP relevance in HFPEF patients with in terms of age & sex distribution, vital parameters, laboratory parameters, comorbidities, M- mode echocardiography, NYHA class, Diastolic dysfunction type at the time of presentation. Thus, focus should be on monitoring diastolic disease progression in the preclinical phase and prevention of heart failure hospitalization. Thus, studies should be done to identify patients who may benefit from closer surveillance and tighter control of their risk factors.