

Clinical profile and Outcome of patients of Heart Failure with and without Chronic Kidney Disease: A Prospective Observational Study from Eastern Nepal

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Heart failure is a leading cause of mortality globally. Chronic Kidney Disease is a major co-morbidity that is associated with higher morbidity and mortality in Heart failure. Although well-studied in the western world, there is sparse data from Nepal on the clinical interaction and outcome of patients co-affected by Heart failure and Chronic Kidney Disease. In our prospective observational study, we analyze the clinical profile and outcome of Heart failure patients with Chronic Kidney Disease. We did a hospital based prospective observational study among 200 patients of Heart failure with age 18 years and above. Diagnosis of Heart failure was based on Framingham criteria. The study duration was from November 2018 to October 2019. Clinical profile, risk factors, laboratory parameters and echocardiography were compared between patients with and without Chronic Kidney Disease. Patients were followed up after a period of 3 months and their outcome analyzed. Chi-square test was used to examine the association between nominal variables and student t-test was used for comparison of mean. The mean age of patient was 64.7 ± 14.9 years in Heart failure with Chronic Kidney Disease and 60 ± 16.4 years among those without Chronic Kidney Disease (p value=0.08). Heart failure patients with Chronic Kidney Disease were more likely to present with orthopnea, paroxysmal nocturnal dyspnea and bilateral lower limb swelling (p value <0.05). They documented higher blood pressure, were more likely to have anemia and albuminuria at presentation (p value=<0.05). The overall estimated mortality of HF patients with Chronic Kidney Disease including probable CKD at 3 months was 34% and in the remaining group it was 15% (p value=0.002). Heart failure patients with Chronic Kidney Disease are older with multi-morbidity. They are more likely to have orthopnea and edema at presentation. They are also less likely to receive optimal medical therapy. Three-month mortality was significantly higher in those with renal dysfunction.

KEYWORDS: chronic kidney disease; clinical profile; heart failure; outcome