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### RESEARCH ARTICLE

#### A STUDY OF PREVALENCE OF CHRONIC KIDNEY DISEASE IN ACUTE CORONARY SYNDROME AND ITS IMPACT ON THE MANAGEMENT AND OUTCOME IN ACUTE CORONARY SYNDROME PATIENTS

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#### Manuscript Info

##### Manuscript History

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#### Abstract

**Background and Objectives:** Acute coronary syndromes (ACS) are common in Chronic Kidney Disease and are major source of short term and long term morbidity and mortality in this population. CKD represents a potent and independent risk factor for adverse outcome in ACS patients. Management of patients with CKD presenting with ACS is more complex than in the general population because of the lack of well-designed Randomized trials assessing the therapeutic strategies in such patients. Among ACS patients, Chronic Kidney Disease doubles the death rates and is third only to Cardiogenic Shock and Congestive Heart Failure as a predictor of Mortality. As there is need for improved representation of patients with CKD in Randomized clinical trials to characterize risks and benefits of medical therapies in ACS patients so as to increase Evidence-based decisions. There are limited data on the prevalence of CKD in Acute Coronary Syndrome patients in Indian population. Hence, this Study was done to determine the prevalence of CKD in ACS patients and find the Management difference in Acute Coronary Syndrome patients with CKD and without CKD and to determine the outcome of patients with CKD.

**Methods:** 150 cases of ACS admitted at a Tertiary Care Hospital meeting the inclusion criteria were reconsidered in 1 year time period. It's a single centred, time bound and prospective study. Patients with Acute Coronary Syndrome were selected randomly from Cardiology IPD sections and screened. For Serum Creatinine & Urine for albumin and other relevant investigations. The following investigations were done/Data was collected in the selected patients by using prestructured questionnaire. Data was entered into Microsoft excel data sheet and was analyzed using SPSS 22 version software. Categorical data was represented in the form of Frequency and proportions. Chi-square test was used as test of significance for qualitative data. Continuous data was represented as mean and standard deviation. Independent t test was used as test of significance to identify the mean difference between two quantitative variables.

**Results:** In the study prevalence of CKD among ACS subjects was 35.3%. Female ACS subjects had highest incidence of CKD compared to Males. Among subjects with NSTEMI-ACS, 44.2% had CKD and among Subjects with STEMI, 26% had CKD. Mean EF among CKD

subjects was  $41.40 \pm 7.11\%$  and among those without CKD was  $46.06 \pm 8.40\%$ . Among CKD subjects 17% had mortality and among non CKD subjects 2.1% had mortality. The rewash significant association between mortality and CKD.

**Interpretation and Conclusion:** From the study it was concluded that Prevalence of CKD among ACS subjects was high. With advancement to age there was increase in incidence of CKD and female predominance was observed. Co-morbidities such as DM and HTN increases the prevalence of CKD in ACS subjects. NSTEMI had higher incidence of CKD compared to STEMI. Adequate Medical management and PTCA + Stent improved the outcome among ACS subjects. Mortality was higher among CKD subjects compared to Non CKD subjects.

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### Introduction:-

Acute coronary syndromes (ACS) are common in Chronic Kidney Disease and are major source of short term and long term morbidity and mortality in this population. CKD represents a potent and independent risk factor for adverse outcome in ACS patients. Management of patients with CKD presenting with ACS is more complex than in the general population because of the lack of well-designed Randomized trials assessing the therapeutic strategies in such patients.

Among ACS patients, Chronic Kidney Disease doubles the death rates and is third only to Cardiogenic Shock and Congestive Heart Failure as a predictor of Mortality. As there is need for improved representation of patients with CKD in Randomized clinical trials to characterise risks and benefits of medical therapies in ACS patients so as to increase Evidence based decisions. There are limited data on the prevalence of CKD in Acute Coronary Syndrome patients in Indian population. Hence, this Study was done to determine the prevalence of CKD in ACS patients and find the Management difference in Acute Coronary Syndrome patients with CKD and without CKD and to determine the outcome of patients with CKD.

### Methods:-

150 cases of ACS admitted at a Tertiary Care Hospital meeting the inclusion criteria were considered in 1 year time period. It's a single centred, time bound and prospective study. Patients with Acute Coronary Syndrome were selected randomly from Cardiology IPD sections and screened. For Serum Creatinine & Urine for albumin and other relevant investigations. The following investigations were done/Data was collected in the selected patients by using prestructured questionnaire. Data was entered into Microsoft excel data sheet and was analyzed using SPSS 22 version software. Categorical data was represented in the form of Frequency and proportions. Chi-square test was used as test of significance for qualitative data. Continuous data was represented as mean and standard deviation. Independent t test was used as test of significance to identify the mean difference between two quantitative variables.

### Results:-

In the study prevalence of CKD among ACS subjects was 35.3%. Female ACS subjects had highest incidence of CKD compared to Males. Among subjects with NSTEMI-ACS, 44.2% had CKD and among Subjects with STEMI, 26% had CKD. Mean EF among CKD subjects was  $41.40 \pm 7.11\%$  and among those without CKD was  $46.06 \pm 8.40\%$ . Among CKD subjects 17% had mortality and among non CKD subjects 2.1% had mortality. The rewash significant association between mortality and CKD.

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