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Title: “PROGNOSTIC VALUE OF HYponatremia IN PATIENTS WITH ACUTE CORONARY SYNDROME”


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Background: Coronary artery disease is the leading cause of mortality globally accounting for roughly 7 million deaths and 129 million DALYs annually. Coronary artery disease exerts a significant economic toll, accounting for one third of a projected 47 trillion dollars in economic losses to noncommunicable diseases for the next 20 years. The 30 day outcome in STEMI were 9% death, 23% reinfarct, 0.8% shock. In non ST-segment elevation myocardial infarction 30 day outcome was 3.7% mortality, 1.2% reinfarct, 0.3% shock. Hyponatremia is common after myocardial infarction (MI), and clinical improvement is accompanied by a rise in plasma sodium concentration. However, while the prognostic value of hyponatremia in chronic heart failure is well established, data on the prevalence and prognostic importance of hyponatremia in the setting of acute myocardial infarction are lacking.

Methods: 75 patients were admitted to ICU of GOVERNMENT ROYAPETTAH HOSPITAL between April 2016 to September 2016 with Acute Coronary Syndromes (ACS) were studied.

Study design:
1) Single centered
2) Prospective
3) Follow up study

Results: Age ≥ 65 Years, EF < 40%, hyponatremia at admission, hyponatremia at 48 hours, hyponatremia at discharge, elevated troponin T and Killip classification ≥ 2 are significant and strong independent risk factors for predicting death in patients diagnosed acute coronary syndrome.

In other words, patients diagnosed of acute coronary syndrome have 3-5 times more chances of death if one of the above independent predictor variable also occurs.

Conclusion: Thus hyponatremia at admission or early development is a independent marker for predicting short term mortality in ACS.

Key words - hyponatremia, ACS, short-term mortality, prognostic factor