Title: Impact of nutritional status on outcome of patients of acute coronary syndrome

Author names: Bashir Ahmed Joy , Md. Fakhrul Islam Khaled , Deepta Majumder , Sujoy Kumar Saha , Saleha Salahuddin Asha , Ariful Islam Joarder , Dipal Krishna Adhikary , Sheikh Ahmedul Haque , Md. Monir Hossain Shimul

Abstract: Background Acute Coronary Syndrome (ACS) remains a leading cause of mortality in Bangladesh, where malnutrition is prevalent but often overlooked in clinical care. Malnourished ACS patients may experience worse outcomes, yet nutritional assessment is rarely routine. This study evaluates the impact of nutritional status on short-term outcomes using CONUT scoring.

Methods This prospective cohort study was conducted at the Department of Cardiology, Bangladesh Medical University, Dhaka, Bangladesh, over 18 months. A total of 100 adult ACS patients were included in the final analysis and stratified into nutritional status categories using the Controlling Nutritional Status (CONUT) scoring system. Key outcomes included in-hospital mortality and length of stay. Statistical analyses were performed using SPSS version 29.0.2.0, employing ANOVA, Fisher's exact test, and regression models to examine associations between nutritional status and clinical outcomes.

Results Among the patients, 43% had mild malnutrition, 24% had moderate malnutrition, and 33% had no malnutrition. Nutritional status was significantly associated with both duration of hospital stay ($p < .001$) and mortality ($p = .003$). Patients with moderate malnutrition had significantly longer hospital stays ($\beta = 4.388$, $p < .001$) and higher mortality odds ($\beta = 0.167$, $p < .001$) compared to those without malnutrition.

Conclusion Nutritional status, particularly moderate malnutrition as assessed by CONUT scoring, is a significant predictor of adverse clinical outcomes in ACS patients. Integrating nutritional assessment in ACS management protocols may improve prognosis and reduce healthcare burdens.

Key words: Acute Coronary Syndrome Malnutrition CONUT score Hospital mortality Hospital stay Bangladesh

https://www.sciencedirect.com/science/article/pii/S2666602226000133?via%3Dihub