DETERMINANTS OF PRE-HOSPITAL DELAY AFTER MYOCARDIAL INFARCTION IN BANGLADESH: A RURAL CENTER EXPERIENCE

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Original Research

Introduction: Determinants of pre-hospital delay after myocardial infarction, strictly among South-Asian rural community, till now is largely unknown. And Bangladesh is not an exception. It is a fact that though around two third of its population still live in villages, we do not know what factors are having influence on such delay. To find out these primers of time consumption before seeking medical help, this is a picture of a medical college hospital situated in a rural precinct.

Method: This cross-sectional analytical study was conducted among 98 patients came with Myocardial Infarction (MI) who had met inclusion and exclusion criteria from July 2019 and December 2019. Both STEMI & NSTEMI patients were selected as they have similar attributes. Data was collected in the coronary care unit using a preformed questionnaire.

Result: Among 98 MI patients, where 16 female and 82 male patients had average age 53±12 years. Average income rural community was around 100 USD. Almost 50% of sample were illiterate or below 5th grade. On average 6.6 hours (95% CI: 3.5-12.3) were required to reach CCU after symptom onset, whereas distance to first medical contact (FMC) was about 10.2 Km (95% CI: 6.4-16.2). Median distance to nearest PCI-capable hospital was 140 Km (IQR- 20 Km). Only 28% of patients could reach hospital within 2 hours, where 85% had onset of symptom while they were at home. Tertiary level medical college (74.5%) followed by Upazilla (Sub-urban) government health complex (22.4%) were frequent site of FMC. Principle mode of transport to hospital was CNG-three-wheeler (75% of cases). Logistic regression analysis showed only low literacy was as significant predictor about more than 2 hours pre-hospital delay (OR= 2.58; p=0.043). Other factors such as low income (OR=2.51; p=0.126), diabetes mellitus (OR= 2.99; p=0.059), female sex (OR=1.56; p=0.753), house wife (OR= 1.88; p=0.547), previous MI (OR=1.52; p=1.000), symptom ignorance (OR= 2.14; p=0.455) increases pre-hospital delay and distance to FMC <10 Km (OR= 0.44; p=0.079) no significant prediction of pre-hospital delay after myocardial infarction.

Conclusion: As rural community has less access to education low literacy has a significant impact on pre-hospital delay after myocardial infarction. So measures should be taken in rural areas through patient education and social awareness program regarding MI symptom and danger of delayed medical attention.