

Factors Involved In First Myocardial Infarction, Its Complications And Thrombolytic Pattern In Selected Hospitals Of Nepal

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Background

World Health Organization [WHO] has predicted that by AD 2020 up to three- quarter of death in developing countries would result from non-communicable diseases (NCDs) and that Coronary Heart Disease (CHD) will top the list of killers. Data also indicate that epidemiological transition, which is characterized by aging and changing life style and culminates in epidemics of hypertension (HTN) and CHD, is rapidly occurring in India and other developing countries.

Materials and Methods

This is a multi centric prospective observational study with five centers in the Kathmandu valley. Peoples are of various regions and multi ethnic in the Kathmandu valley. So this group should form a representative sample of first acute Myocardial infarction (MI) in Nepal. Both sexes and all age group patients of suspected first acute MI were included in this study. Patients of unstable angina, Old MI and second and subsequent MI were not included in this study.

Result

The present study consists of 213 cases of first MI. Male patients were 157 (73.7%) and female patients were 56 (26.3%). Male and female ratio was 2.8: 1.0. Mean Age of first MI was 57 ± 11 years. Younger patients (≤ 45 years) were 42 (19.7%) Hypertensive cases were 94 (44.1%) and diabetic cases were 62 (29.1%), 83 (38.97%) cases had total serum cholesterol more than 200 mg%, while abnormal serum triglyceride (>150 mg%) found in 111 (52.11%). Positive family history found in 44 (20.7%), Cases of ST-Elevation MI (STEMI) were 192 (90.14 %), Non ST-Elevation MI (NSTEMI) were 19 (8.92%) and New Left Bundle Branch Block (LBBB) were 2 (0.93%). Only 36 (16.9 %) of patients reached hospitals within 2 hours after onset of chest pain and 117 (54.9%) reached with in 12

hours. Thrombolysis had done in 95 (44.6 %) patients. Only 40 (18.78 %) cases were thrombolysed within 30 minutes. Combined in hospital mortality were 16 (7.5%).

Conclusion

Mean age of first MI was 57 years, Younger (≤ 45 yrs) population had suffered MI more (19.7%) than what is seen in other parts of the world. Still commonest CHD risk factor was : smoking (72.3%). HTN (44% versus 28%) and Diabetes Mellitus (29 % versus 14%) have increased. Anterior wall MI is 1.4 times commoner than inferior wall. Only 17% of MI patients came within 2 hours to hospital after chest pain. 95 (44.6%) of STEMI were thrombolysed and only 40 (18.78%) were thrombolysed within 30 minutes after coming to emergency. In Hospital mortality was 7.5%. Incidence of MI had increased at least 11 times over the past four decades while population of Kathmandu valley has increased by three times.