

Clinical Profile Of 400 Cases Of Acute M.I. Admitted At N.I.C.V.D.✧

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Background:

Incidence of Coronary heart disease has enormously increased in the last two decades. In this study we looked at the age, Sex, risk factor, time lag between onset of symptoms and arrival at the hospital and type of the initial treatment received.

Results:

There were around 80% male patients and rest were females. 59% of patients were between 40—60 years of age. Cigarette smoking emerged as major single common risk factor. 68% of the patients arrived in < 6 hrs. and around 32% of the patients received thrombolytic therapy.

Conclusion:

Coronary Heart Disease is some thing like epidemics. It effects far more male patients at younger age. Family history is not a strong risk factor, cigarette smoking followed by hypertension and hyperlipidaemia is the major risk factor. Although great majority of patients arrived in less than six hours, however relatively few number of patients received thrombolytic therapy.

Coronary heart disease has emerged at the major cause of morbidity and mortality in our country in the last two decades.

We studied all patients with transmural M.I. admitted in our hospital between May and Aug. 94.

Method:

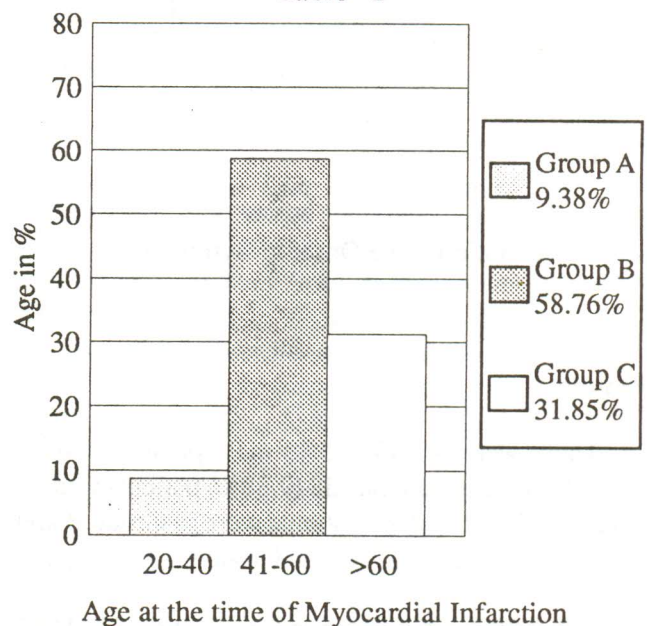
All patients of both sexes with ECG criteria of

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acute transmural M.I. were recruited in this study. Patients with abnormal resting ECG as LBBB and only ST,T changes were excluded.

Age of the patients was ascertained as much correctly as possible for which several different questions were asked to get accurate answer. Patients were divided in three groups according to their age.

Table - I



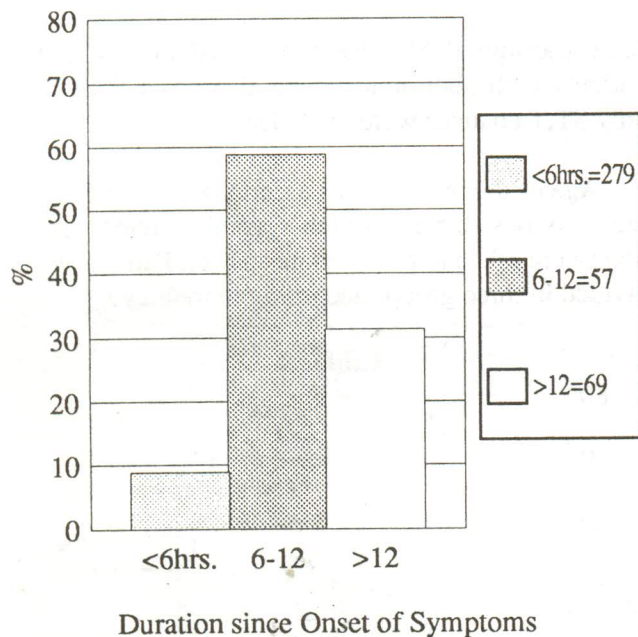
Group A — 20 - 40 yrs.
Group B — 41 - 60 yrs.
Group C — > 60 yrs of age.

All patients were screened for different risk factors. Nos. of cigarettes smoked, duration of smoking in years. H/o Diabetes Mellitus, Hypertension, their duration and type of therapy received was also recorded. Not many patients knew about their lipid

status, so it was difficult to establish its role in these patients. However in another ongoing study, we have found that raise cholesterol is as much prevalent as tobacco consumption in our Society.

Duration of symptoms was also recorded in Nos. of hours and minutes.

Table - II



Results:

There were 321 (79.25%) male patients and 84 (20.74%) female patients. 38 (9.38%) patients were in Group A, 238 (58.76%) patients were in Group B and 129 (31.85%) patients were in Group C (Table-I).

279 (69%) patients arrived in < 6 hrs. 57 (14%) between 6-12 hrs and 69 (17%) in > 12 hrs. (Table-II).

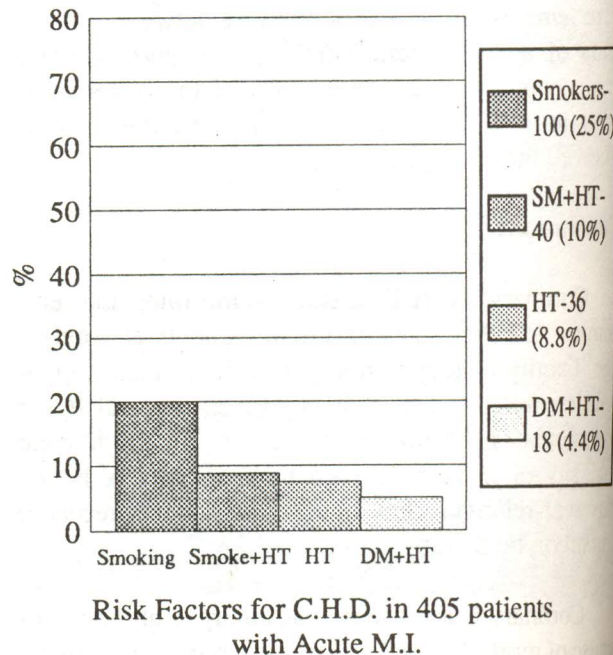
Patients were assessed for different risk factors. 100 (25%) patients were chronic smokers for > 5 yrs. 40 (10%) patients had two risk factors, smoking and hypertension. Hypertension as single risk factor was found in 36 (8.8%) of patients. Diabetes Mellitus and hypertension was found in 18 (4.4%) patients (Table-III) Hyperlipidaemia was not evaluated, as most of the patients were not aware of their serum lipid status.

164 (40.49%) patients had inferior M.I., 152 (37.53%) patients had anterior M.I., 60 (14.8%) had extensive anterior M.I. and 22 patients had lateral and Inferior M.I. (Table-IV).

Out of 279 patients who arrived in < 6 hrs., only 90 (32.33%) patients received strepto Kinase, while it was not offered to large Nos. of patients, either they could not be offered this expensive therapy or in few instances the duty medical officer found it rather difficult to ascertain if this sort of therapy should be offered at all, and still they were few who had contraindications for the use of thrombolytic therapy (Table-V).

Ten patients died during their stay due to cardiogenic shock & recurrent ventricular arrhythmias. Twenty patients developed C.H.D., which responded to temporary pacing lead. Six patients developed

Table - III



cardioenic shock and recovered subsequently and few patients had extension of M.I.

Discussion:

Coronary heart disease is one of the commonest cause of mortality in our country. There has been a

rapid increase in the incidence of Coronary Heart disease in the last two decades. At N.I.C.V.D. we admit 30-40 acute M.Is. daily, which makes more than twelve thousand cases of acute M.I. each year; still large Nos. of patients are admitted at other hospitals in the city. Majority of the patients are males between fourth and six decade of life, the time when they are highly active and can be useful for society.

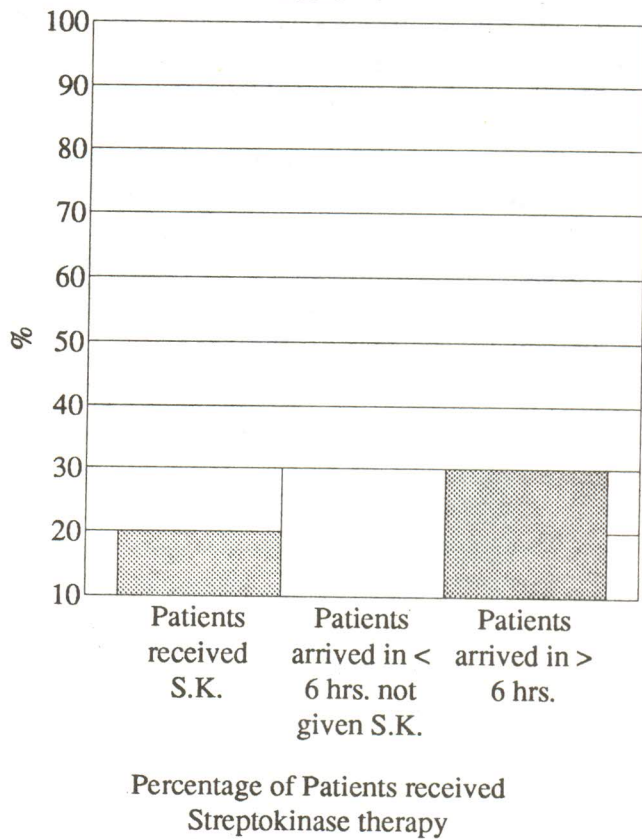
Table - IV

Inferior M.I. 164 (40.49%)	F (33)	Premenopausal 5
		Postmenopausal 28
	M 137	
Anterior M.I. 152 (37.53%)	F (35)	Pre 5
		Post 30
	M (117)	
Extensive Ant. 60 (14.8%)	F (14)	Pre 12
		Post 2
	M (46)	
Lat & I Inf 22 (5.43%)	F (5)	
	M (17)	

We did not see Family History as the important factor in the etiology of C.H.D. Cigarette smoking emerged as single major risk factor. Although around 25% of the patients were smokers, but still it is very likely that quite few did not admit that they are smokers. Several studies including Franinghan study has documented that in heavy smokers there is lower level of HDL and higher levels of LDL & trigly-cerides. Inhalation of Cigarette smoke exerts many effects on clotting factors, platelet functions and hematologic parameters. It has been documented that chronic smokers have higher value of Fibrinogen, and fibrinogen have been reported as an important independent risk factor. With cessation of smoking fibrinogen levels settle in five years time.

Nicotine is a potent against for the adrenergic nervous system and increases plasma epinephrine levels. Inhalation of tobacco smoke has been shown to induce increase coronary tone and enhance vasoconstriction in coronary artery diseases patients.

Table - V



Percentage of Patients received Streptokinase therapy

We could not assess the significance of raised cholesterol in our patients, as majority of the patients were unaware of their lipid status. However in our another ongoing study of patients with definite coronary Heart disease who are admitted for coronary angiography reply we have found that raised cholesterol is seen at least in 25% of the subject, again it is worth monitoring that this is a biased group, which has already modified their diet to large extent: thus we do need to look at the lipid status of our general population.

Hypertension and Diabetes Mellitus, two other major risk factors also need to be dealt effectively. Most of our patients were taking inappropriate therapy is sub-optimal doses.

Out of the twentytwo premenopausal female patients, three were pregnant, two of them had inferior and one anterior M.I. unfortunately we lost two on follow up and our third patients who had inferior M.I. was last seen immediately before delivery in Nov. 94. In none of the three cases any complication appeared

during these stays. We wish to look for the etiology in these subjects as hyper coagulable state due to hormones and fibrinogen levels and perhaps altered platelet functions are few possibilities:

Coronary heart disease is preventable to large extent, modification of risk factors, change in life style and diet pattern is needed. As tobacco consumption is the major preventable risk factor, we need to increase public awareness against it. Several steps can be taken in this connection.

References:

1. Trends in the incidence of myocardial infarction and in associated mortality and morbidity in large employed population 1957-1983 N. Eng. J. Med. 312:1005, 1985.
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3. The decline in ischaemic heart disease mortality rates. An analysis of the Comparative effects of medical interventions and changes in life style. Ann. Intern Med. 101:825, 1984.