Gender Difference in the Coronary Risk Factors Amongst the Patients with Acute Coronary Events in Nepal

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Abstract:

Background: Acute Coronary Event (ACE) is the commonest cause of admission in Coronary Care Unit (CCU) in Nepal. With growing epidemic of coronary artery disease in Asian countries, there is an urgent need to assess the locally prevalent coronary risk factors. There seems to be a significant difference in the risk factors amongst male and female population. Methods: A prospective analysis was done in 404 consecutive patients admitted with an acute coronary event in CCU in the Norvic Escorts Health Care And Research Centre, Kathmandu from January 1999 to July 2002 .The data was analyzed and various risk factors were stratified. Results: Out of 404 patients of ACE, 251 (62%) patients were males and 153 (38%) patients were females. The commonest risk factors amongst male patients were smoking in 160 (64%), hypertension in 148 (59%) and dyslipidemia in 133(53%), followed by diabetes in 80 (32%) and a positive family history in 65 (26%) patients. As against this, female patients had commonest risk factors as hypertension in 71 (47%), diabetes in 71 (47%) and smoking in 64 (42%), followed by a positive family history in 47 (31%), and dyslipidemia in 23 (15%) patients. Conclusions: Smoking is the most common risk factor followed by Hypertension and Dyslipidemia in male patients with ACE, but most female patients with ACE have Hypertension as the most common coronary risk factor followed by diabetes mellitus. This may be partly due to the difference of socio-economic status of two genders in Nepal. An aggressive preventive approach is mandatory to decrease the expensive burden of coronary artery disease in this poor Himalayan country.

Background:

In the Framingham Heart Study, 26-year follow-up of men and women aged 35 to 84 years indicated that CAD morbidity was twice as high in men as in women, and 60 per cent of coronary events occurred in men,[1] The onset of symptomatic CAD is typically about 10 years earlier in men, but CAD incidence in women increases rapidly at menopause. Women have the same modifiable risk factors as men,[2] although diabetes appears to confer greater risk in women than in men,[3] as may low HDL cholesterol and elevated plasma triglyceride. [4]

Acute Coronary Event (ACE) is the commonest cause of admission in Coronary Care Unit (CCU) in Nepal. With growing epidemic of coronary artery disease in Asian countries, there is an urgent need to assess the locally prevalent coronary risk factors. There seems to be a significant difference in the risk factors amongst male and female population. Not much data is available to assess if coronary risk factors were different in male versus female South Asian population.

Method and observations:

A prospective analysis was done in 404 consecutive patients admitted with an acute coronary event in CCU in the Norvic Escorts International hospital, Kathmandu from January 1999 to July 2002 .The data was analyzed and various risk factors were stratified.

Out of 404 patients of ACE, 251 (62%) patients were males and 153 (38%) patients were females. The commonest risk factors amongst male patients were smoking in 160(64%), hypertension in 148 (59%) and dyslipidemia in 133 (53%), followed by diabetes in 80(32%) and a positive family history in 65 (26%) patients. As against this, female patients had commonest risk factors as hypertension in 71 (47%), diabetes in 71 (47%) and smoking in 64 (42%), followed by a positive family history in 47 (31%), and dyslipidemia in 23 (15%) patients.

TABLE 1: GENDER DISTRIBUTION OF THE SAMPLE

Gender	No. (%)
Males	251(62%)
Females	153 (38%)

TABLE 2: PREVALENCE OF RISK FACTORS IN THE TWO SEXES

	Males	Females	
1	Smoking	160 (64%)	64(42%)
2	Hypertension	148(59%)	71(47%)
3	Dyslipidemia	133(53%),	23(15%)
4	Diabetes Mellitus	80(32%)	71(47%)
5	Positive family history	65(26%)	47(31%)

BAR DIAGRAM SHOWING PREVALENCE OF DIFFERENT RISK FACTORS.

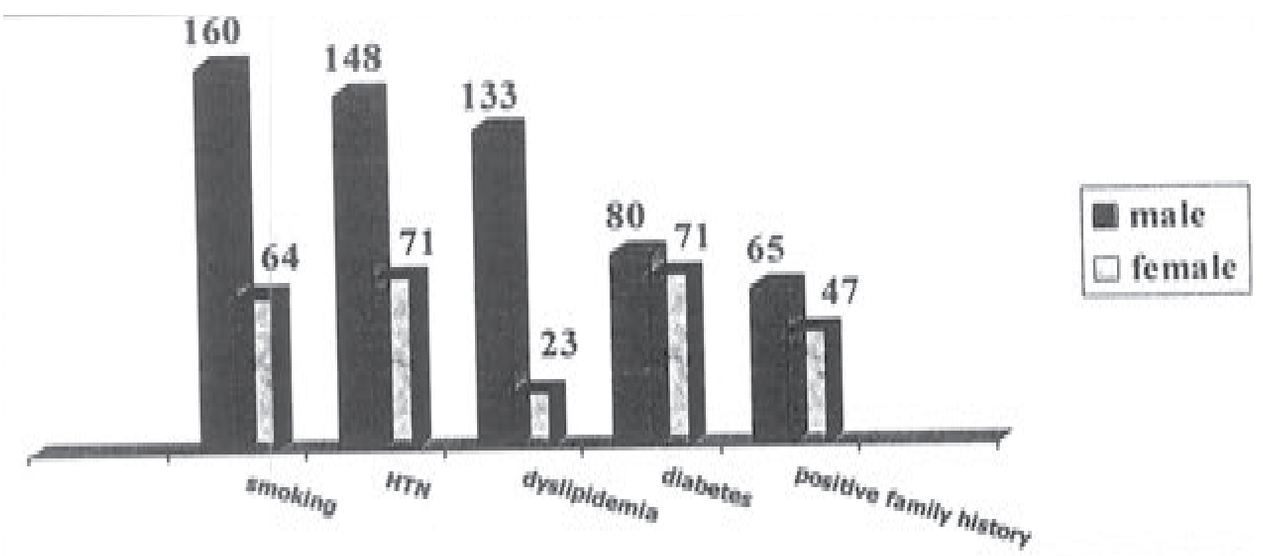

TABLE 3: THE TOP 5 RISK FACTORS IN MALES & THE FEMALES

	Males	Females
1	Smoking 160 (64%)	Hypertension 71 (47%)
2	Hypertension 148 (59%)	Diabetes Mellitus 71 (47%)
3	Dyslipidemia 133 (53%)	Smoking 64 (42%)
4	Diabetes Mellitus 80 (32%)	Positive family history 47 (31%)
5	Positive family history 65 (26%)	Dyslipidemia 23 (15%)

Discussion and Conclusions:

Women suffering from an acute myocardial infarction are likely to be older and more likely to have a history of hypertension, diabetes, unstable angina, hyperlipidemia, and congestive heart failure and are less likely to be smokers than their male counterparts, [5+15] In this study also, smoking was found to be the most common risk factor in male patients with acute coronary event (ACE), followed by Hypertension and Dyslipidemia, but most female patients with ACE have Hypertension as the most common coronary risk factor followed by diabetes mellitus. This may be partly due to the difference of socio-economic status of two genders in Nepal. An aggressive preventive approach is mandatory to decrease the expensive burden of coronary artery disease in this poor Himalayan country.

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