

## Abstract

**Introduction** - Throughout the world, 7.3 million deaths per year are estimated to occur due to acute myocardial infarction. It is the commonest form of heart disease and the single most important cause of premature deaths in the developed world, though in most western countries, the incidence has been on the decline since of late. In contrast, the incidence of this condition is on the increase in many developing countries.

In Sri Lanka, it is the first leading cause of hospital deaths, rating 18.9 deaths per 10<sup>5</sup> population for the year 2002. Unfortunately, after an episode of acute coronary artery event, only a few patients follow the secondary prevention protocol to avoid a second episode, which emphasizes the low importance placed on secondary prevention.

**Objectives** - To assess patients' knowledge, attitudes, sources of information and practices with regard to secondary prevention of acute myocardial infarction.

**Study design** - Descriptive cross sectional study

**Settings** - Cardiology Unit, Colombo

**Subjects** - Convenient sampling (non probability) technique was adopted in this study and the sample consisted of 414 patients who have suffered a single attack of acute myocardial infarction during the period between 01/01/2000 to 01/04/2004. Data were collected with an interviewer administered structured questionnaire which included questions on patients' knowledge, attitudes, sources of information and practices. Secondary data on, other disease conditions, the status of control with regard to these latter conditions and the details on therapeutic and surgical management were extracted from patients' clinic books and clinical records. A scoring system was used to summarize patients' knowledge and attitudes, but the practices were assessed individually.

**Main outcome measures** - Patients' knowledge, attitudes, sources of information and practices in relation to prevention of a further attack.

**Results** - Patients' knowledge on secondary prevention of acute myocardial infarction was found to be unsatisfactory, with only 154 (37.2%) and 63 patients (15.2%) obtaining a

'good' and a 'very good' total knowledge score respectively. Smoking and high alcohol intake were considered as risk factors by only 70% and 67.9% patients respectively. In contrast, uncontrolled diabetes, hypertension and hypercholesterolemia were known as risk factors by a higher percentage of patients (91.3% , 88.6% and 82.1%). Harmful effects of coconut oil was known by 90.2% of patients, although their knowledge on some healthy (fruit and fish ) and unhealthy eating practices (pork and beef ) were poor. Only 65.2% of patients knew the value of regular exercises.

When comparing patients' total knowledge scores with certain socio demographic characteristics, a statistically significant higher knowledge was found among patients aged less than 60 years, non Buddhists, professionals and those engaged in business and among patients with an education level of G.C.E ordinary level or higher.

Patients' attitudes were also found to be unsatisfactory. Fifty four (13%) and 164 (39.5%) patients achieved a 'very poor' and a 'poor' total attitudes score respectively. A statistically significant more favourable attitudes score were observed among males, patients aged less than 60 years, Buddhists, patients with an educational level of G.C.E ordinary level or higher, professionals and those engaged in business, those obtaining a total monthly family income of Rs . 10000/= or more and among patients with a time lapse of less than one year after the first attack. In contrast, patients' knowledge status was not found to be statistically significant with their attitude scores.

The highest source of information on knowledge was doctors (more than 90%). Mass media, reading material and public health staff proved to be poor sources of information. Only 58.6% of patients have received advice regarding the side effects of drugs, that were prescribed to them.

With regard to the practices, only 79.7% of patients engaged in regular exercise while 22% of patients continued to smoke and 20.5% of them continued to consume alcohol. Regular clinic attendance was observed in only 70.3% of patients and regular drug intake in 81.4% of them. Sixty four per cent of patients experienced side effects from drugs that were prescribed to them. As many as 58% of patients had to spend more than Rs.500/= per month to purchase drugs and for the investigations from the private sector. Compliance to surgical treatment, was found to be satisfactory among these patients. It was observed that 62.8% had to wait more than one year to undergo the recommended surgical procedures.

With regard to the family support received by patients, it was observed that only 2.9% of patients did not receive any support from family members, friends or relatives.

A total of 174 (42%) patients claimed to have experienced a change in routine sexual activity after the attack of acute MI. Fear of another attack during intercourse (n = 74, 42.5%) and denial of sex by the partner (n = 71, 40.8%) were the main reasons for the change.

In consideration of secondary data extracted from patients' clinic books / clinic records, elevated fasting blood sugar level, hypercholesterolemia and hypertension were observed in 9.7% , 22% and 12.1% of patients respectively. Patients' compliance to drug treatment was found to be satisfactory ( aspirin – 100%; beta blockers – 91.8%, ACE inhibitors - 62.1% and statins – 96.6%).

**Conclusion** – Overall knowledge, attitudes and practices with regard to secondary prevention of acute myocardial infarction were found to be unsatisfactory. More awareness and changes in behaviours of patients should be made through the cardiac rehabilitation centers, hospital staff, public health staff and mass media.