

Adherence of Life Style Modification in Post Myocardial Infarction Patients

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Abstract: Although preventive drug therapy is a priority after acute coronary syndrome, less is known about adherence to behavioral recommendations. According to the World Health Organization (WHO), 80% of premature heart disease is preventable. The landmark INTERHEART Study reiterates and reinforces the crucial role of certain risk factors that when modified through lifestyle and medication reduces the burden of CAD (coronary artery disease) in India. The prevalence of major modifiable risk factors is high and is increasing in India. Two simple factors (tobacco and abnormal lipid ratio) explain more than two thirds of risk, and confirms that tobacco, diet, and physical activity may have huge implications for the Indian population in the increase of coronary artery disease.

Keywords: risk factors, coronary artery disease, lifestyle modification

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I. Introduction

Adherence to lifestyle changes and medication regimen is less than optimal for many disease states. Although preventive drug therapy is a priority after acute coronary syndrome, life style modification plays a key role in the secondary prevention of Myocardial infarction. Adherence to lifestyle modification after Myocardial infarction is associated with substantial lowering of risk of future cardiovascular events.

II. AIM OF THE STUDY

To find out the adherence of the recommended life style changes and drug adherence in patients who had survived myocardial infarction.

III. Study Population

Patients who survived a Acute Coronary Syndrome, coming to the cardiology out patient department, Govt Tiruvannamalai Medical College, Tiruvannamalai were selected for the study.

III Inclusion Criteria

Patients were eligible if they met these criteria:

Age of less than 70 years

H/o treatment for Acute Coronary Syndrome and survived more than 30 days.

IV. Methods

The Selected patients were subjected to a set of simple questionnaire pertaining to their adherence to lifestyle. Data regarding age, sex, demography, comorbid conditions, risk factors and previous MI or stroke were also collected.

Smoking was assessed with the question, "Do the patient smoke?"

Answer options were "yes" and "no."

Currently smoking was defined as smoking at least 1 cigarette (or cigar or pipe) per day within the last month.

Smoking status was classified according to self report into 3 categories:

1. never smokers

2. recent quitters (those who were smokers before the Myocardial Infarction (MI).

3. persistent smokers (those who were smokers before the MI and reported continuing smoking).

Exercise was assessed with the question, "Do the patient exercise regularly (30 minutes 5 times a week)

Exercise was noted to include walking uninterrupted or any exercise program.

Diet was assessed with the question, "Has patient received counselling for diet?"

Answer options were “yes” and “no.”

If the response was affirmative, then the follow-up question was, “Is the patient compliant?”

Answer options were “yes” and “no.”

Regarding drug therapy simple question of whether prescribed any drugs to be taken regularly ?

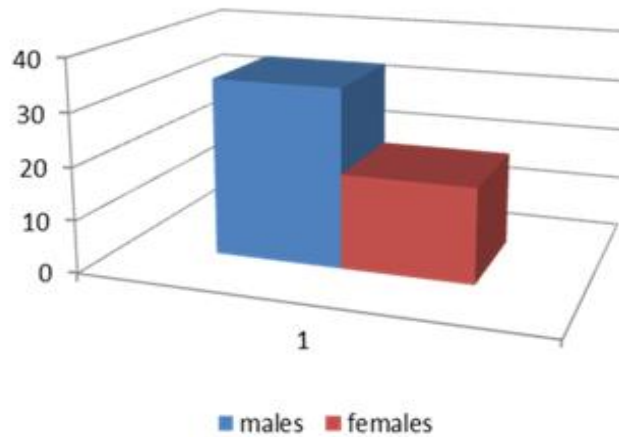
If yes , then the drugs he was taking was verified to see if it included antiplatelet and statins.

V RESULTS

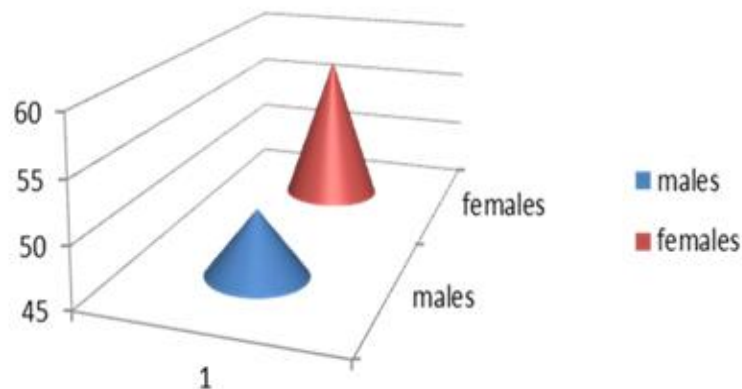
52 patients who survived the STEMI for more than 30 days were included in the study .

34 of them were males ; 18 of them were females.

The mean age for the males was 50.5 years ; for the females it was 57.7 years.



The female age was slightly higher than that of males.



Average BMI for males was 25.8 ; for females it was 26.5.

22 of the 32 males were smokers prior to the MI . Of them 14 are current persistent smokers; and 8 were quitters. All Females denied smoking. 16 persons of the 22 smokers had some knowledge about the ill effects of smoking. 6 of the persistent smokers reported about their difficulty in stopping smoking.

44 of the 52 patients were taking their drugs regularly which included antiplatelet and statins. 2 persons had stopped antiplatelet in view of minor UGI bleed

22 people of the total 52 reported that they adhere to walking as prescribed by the physician.

29 of the people do adhere to their diet pattern as suggested by their physician.

Of the 3 patients who had previous stroke and present MI , 2 were current smokers.

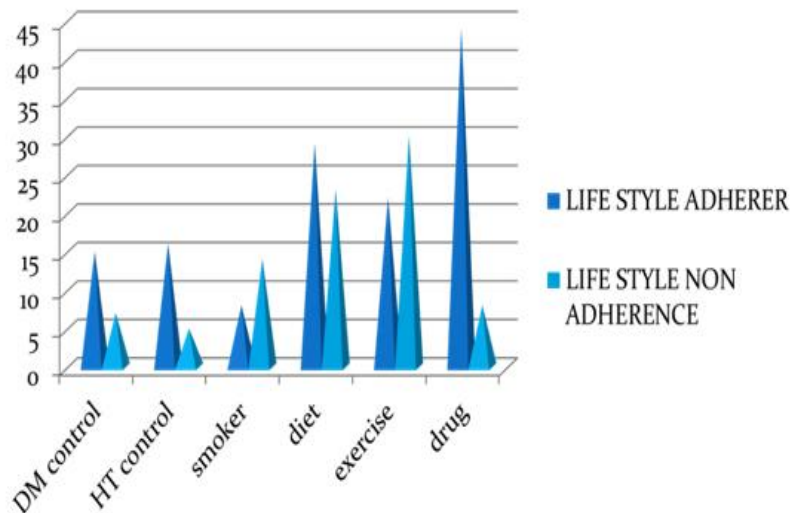
Of the 10 persons who had post infarct angina , 6 were current smokers.

Life style adherence

	Males	Females	Total
Diabetic control	9 (64%) n 14	6 (66%) n 8	15 (65%) n 22
Hypertension control	10 (83%) n 12	6 (66%) n 9	16 (76%) n 21
Smokers quitters	8 (36%) n 22	-----	8 (36%)
Diet adherence	19 (55%) n 34	10 (55%) n 18	29 (55%) n 52
Exercise	14 (41%) n 34	8 (44%) n 18	22 (42%) n 52
Drug adherence	29 (85%) n 34	15 (83%) n 18	44 (85%) n 52

Life style NonAdherence

	Males	Females	Total
Diabetes	5 (35%)	2 (25%)	7(35%)
Hypertension	2 (17%)	3 (33%)	5 (24%)
Current smoker	14 (64%)	-----	14
Diet Non adherence	15 (44%)	8 (44%)	23 (44%)
Exercise	20 (59%)	10 (56%)	30 (58%)
Drug Non adherence	5 (15%)	3 (17%)	8 (15%)



V. Discussion

In this study the percentage of current smokers is high. Only 31% of the patients had knowledge about the ill effects of smoking on cardiovascular diseases. Smokers had the high risk of both CAD and CVA. This study has observed that some current smokers were not able to quit their smoking. Hence smoking cessation techniques should be emphasized during the secondary prevention of CAD. The study also shows that drug adherence was good and more than 50% of patients had good hypertensive and diabetic control. The study analysis highlights the poor adherence to behavioral changes like diet, exercise and smoking cessation.

VI. Conclusion

Life style modification takes a back seat in the secondary prevention of CAD. Smoking cessation programme should play an important role in the secondary prevention of CAD. The importance of life style modification and smoking cessation should be emphasized at each follow up and at primary care level too. Though tremendous development has evolved in the management of ACS, one should not forget the basic management, lifestyle modification, which forms the foundation in the treatment of CAD.

References

- [1]. Sonia S. Anand, Shofiqul Islam, Annika Rosengren, Risk factors for myocardial infarction in women and men: European Heart Journal Volume 29, Issue 7 Pp. 932-940
- [2]. Clara K. Chow, Sanjit Jolly, Purnima Rao-Melacini, Keith A.A. Fox, Sonia S. Anand and Salim Association of Diet, Exercise, and Smoking Modification With Risk of Early Cardiovascular Events After Acute Coronary Syndromes Circulation. 2010;121:750-758
- [3]. Yusuf S, Hawken S, Ounpuu S, Dans T, Avezum A, Lanas F, McQueen M, Budaj A, Pais P, Varigos J, Lisheng Effect of potentially modifiable risk factors associated with myocardial infarction in 52 countries (the INTERHEART study): case-control study. L. Lancet. 2004;364:937-952.
- [4]. Mediterranean diet and survival among patients with coronary heart disease in Greece. Arch Intern Med. 2005;165:929 -935.
- [5]. Ajay VS, Prabhakaran D. Coronary heart disease in Indians: implications of the INTERHEART study. Indian J Med Res. Nov 2010;132(5):561-566.
- [6]. Mehta SR, Yusuf S, Granger CB, Wallentin L, Peters RJ, Bassand JP, Budaj A, Joyner C, Chrolavicius S, Fox KA. Design and rationale of the MICHELANGELO Organization to Assess Strategies in Acute Ischemic Syndromes (OASIS)-5 trial program evaluating fondaparinux, a synthetic factor Xa inhibitor, in patients with non-ST-segment elevation acute coronary syndromes. Am Heart J. 2005;150:1107.

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