Type of Manuscript: ***Original Article***

Prevalence of Fatigue and Physical Activity after Acute Myocardial Infarction

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Abstract

Background and Objectives: Objective of this study was to find out the fatigue and physical activity after acute myocardial infarction. On the basis of RPFScale the assessment was of been done for fatigue.

Methodology: There were total 80 subjects in this study. This was a study of fatigue examination in post myocardial infarction patients. Here we evaluated the intensity of the fatigue in the older adults of Acute Myocardial Infarction and graded the intensity on the basis of RPFScale.

Result: There is increase in fatigue in the post acute myocardial infarction older adults. Increased fatigue is found more in the age group of 60-65 years of older adults as compared to age group of 66-70 years of older adults.

Conclusion: By this study, it is concluded that there is prevalence of fatigue in older adults post acute myocardial infarction.

Keywords: *Myocardial infarction, fatigue, physical activity.*

Introduction

Myocardial Infarction is a clinical syndrome, that results from sudden occlusion of coronary artery with resultant infarction and death of cardiac myocytes in the region supplied by that artery.

CAUSES of Myocardial Infarction: -

Peripheral Vascular Disease.

Diabetes.

Lack of Physical Activity.

Abnormal Obesity.

Unhealthy diet.

Atherosclerosis.

Hypertension.

Genetics.

Cardiac structure is a major determinant of function, which is depressed after Myocardial Infarction. After Myocardial Infarction, both short term and long term compensatory or regulatory mechanisms are activated.

People with lack of exercise are more in number suffering from cardiovascular disorders mostly Myocardial Infarction. [1]

Cardiovascular diseases are among the most common cause of morbidity and mortality worldwide that account for 35% of global deaths. According for WHO, 12 million people die annually of Cardiovascular diseases.

Fatigue is most common symptom reported 5 months after acute Myocardial Infarction. Older adult's

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participation in physical activity is negatively influenced by fatigue. [17]

Fatigue is defined as the feeling of lack of energy and feeling of tiredness that has a gradual onset. Fatigue may cause decreased ability to do work or do a physical activity, be involved with family, socialize with friends and or complete daily activities.

Physical Activity is defined as any bodily movement that increases the energy expenditure above the basal metabolic rate, and it should be performed at an intensity level that offers health benefits.

Fatigue has been associated with aging; thus, aging may be a covariate of persistent fatigue post-Acute Myocardial Infarction. Besides the incidence and the prevalence of anemia increases with the age and fatigue is the symptom of anemia.[10]

The World Health Organization defines Quality of Life as the individual's perception of their position in life in the context of culture and values system in which they live in relation to their goals, expressions, standards, and concerns.

It is subjective, multidirectional concept that defines a standard level for emotional, material and social well-being.

Acute Myocardial Infarction is a common disease with the serious consequences in mortality, morbidity, and cost to the society.

According to WHO's definition, a Myocardial infarction occurs if at least 2 or 3 criteria are fulfilled; typical ischaemic chest pain; raised concentration of creatine kinase-MB in serum and typical electrocardiographic findings, including development of pathological Q-waves.

Myocardial Infarction is a major cause of morbidity and mortality worldwide. More than 3 million people each year are estimated to have an Acute ST-Elevation Myocardial Infarction with more than 4 million having a Non-ST-Elevation Myocardial Infarction.

Acute Myocardial Infarction is an event of myocardial necrosis caused by unstable ischaemic syndrome. In practise the disorder is diagnosed and assessed on the basis of the clinical evaluation, the electrocardiogram, biochemical testing, invasive and non-invasive imaging, and the pathological evaluation.

Post-Acute myocardial Infarction is characterized by chest pain, fever, pericarditis with friction rub, pleurisy, pleural effusion, joint pain and elevated white blood cells count and sedimentation rate.

Methodology

Total 80 subjects were approached in the Krishna Hospital, Karad who fulfilled the inclusion criteria for the study. There were 40 male and 40 female participants. The subjects were divided into 2 groups where 1 group contained 40 participants with the age group of 60-65 years and the other group contained 40 participants with age group of 65-70 years. The procedure was explained and consent was been taken from those participated in this study. Here we evaluated the intensity of the fatigue and graded them on the basis of the Revised piper Fatigue Scale.[15] Data was collected. Later statistical analysis was done in accordance to distribution of age, both genders and score on the RPF scale.

Statistical Analysis and Results

Statistical analysis of the recorded data was done. Study design is cross sectional. Arithmetic mean and standard deviation was calculated for each outcome measure. T test was done. The study has p value <0.000 and was extremely significant.

TABLE NO.1 RPFS SCORE IN AGE GROUP 60-65

	Mean ±SD	T value	P value	Interference
Age 60-65 yrs	62.2±1.6	235.9	< 0.0001	Extremely significant
RPFS	68.9±4.56	95.6	< 0.0001	Extremely significant

TABLE No.2: RPFS SCORE IN AGE GROUP 66-70

	Mean ±SD	T value	P value	Interference
Age 66-70 yrs	68.25±1.4	298.6	< 0.0001	Extremely significant
RPFS	77.0±8.6	56.0	< 0.0001	Extremely significant

Discussion

Myocardial Infarction is a clinical syndrome, that results from sudden occlusion of coronary artery with resultant infarction and death of cardiac myocytes in the region supplied by that artery.

Fatigue is defined as the feeling of lack of energy and feeling of tiredness that has a gradual onset. Fatigue may cause decreased ability to do work or do a physical activity, be involved with family, socialize with friends and or complete daily activities.

Physical Activity is defined as any bodily movement that increases the energy expenditure above the basal metabolic rate, and it should be performed at an intensity level that offers health benefits.

The aim of this study was to find the prevalence of fatigue and physical activity after acute myocardial infarction. The duration of this study performed was for 6 months where the patient's concern was been taken and assessed the fatigue of the subjects with the help of the Revised Piper Fatigue Scale.

The RPFS is a 22-item instrument designed to capture four dimensions of subjective fatigue: 1) The behavioral/ severity subscale explores the extent to which fatigue causes distress or interferes with enjoyable activities such as socialization with friends. 2) The affective meaning subscale related to the emotional meaning of fatigue and includes items such as the choice to describe the fatigue as protective or destructive or as positive or negative. 3) The sensory subscale comprises descriptors of physical sensations associated with fatigue such as strong or weak, awake or sleepy, and lively or listless; and 4) the cognitive/mood subscale describes how fatigue affects thinking processes and mood state with terms such as exhilarated or depressed.[15]

There were 80 subjects taken for this study and the fatigue level in them was been assessed.

Table No. 1.1 shows the RPFS score of the age group 60-65 years was 68.9.

Table No. 2.1 shows the RPFS score of the age group 66-70 years was 77.0.

This study proved that the intensity of fatigue in the age group 66-70 years had increased as compared to the age group 60-65 years.

Conclusion

After assessment of 80 subjects, this study shows that the mean of RPFS of age group 60-65 is 68.9 and the RPFA of age group 66-70 is 77.0. The study shows that the intensity of fatigue is more in age group 60-65 as compared to 66-70 years.

Conflicts of Interest: There were no conflicts of interests in this study.

Ethical Clearance: Ethical clearance was taken from the institutional committee of Krishna Institute of medical sciences, deemed to be University, Karad.

Acknowledgement: The authors would like to express their social gratitude towards all the patients that participated in this study. We would also like to thank our families and institution for their everlasting support which enabled us to continue our research activities.

Source of Funding: Self.

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