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STUDY TO KNOW THE PREVALENCE OF IMPAIRED GLUCOSE TOLERENCE TEST IN PATIENTS OF ACUTE MYOCARDIAL INFARCTION WITHOUT PREVIOUSLY DIAGNOSED DIABETES MELLITUS

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Abstract:

Objective: To investigate the prevalence of impaired glucose tolerance in patients with acute myocardial infarction *without diabetes mellitus history.*

Study design: *A descriptive study of case series.*

Study place and Duration: *This descriptive study of case series was held in the Department of Medicine in collaboration with Cardiology Department in Services Hospital, Lahore for one year duration from April 2017 to April 2018.*

Methods: *The study included 172 subjects with acute myocardial infarction without any previous diabetes mellitus history. Blood glucose levels in fasting were first recorded, then orally administered with 75 g glucose. Than for thirty minutes, one hour, two hours and three hours blood glucose levels were recorded.*

Results: *51.98 ± 6.4 years was the mean age of the patients. The mean blood sugar level in fasting was 105.3 ± 12.04 mg / dL. After 3 hours of meal, 30 minutes, 1 hour, 2 hours and 75 g glucose, blood glucose level was 145.9 ± 16.09 mg / dl, 139.1 ± 16.03 mg / dl, 137 / dl and 131.0 ± 15.8. mg respectively. There were 104 (61.06%) patients with normal tolerance to blood sugar and 68 (40.3%) patients with decreased tolerance to blood glucose.*

Conclusion: *The glucose tolerance test is an important marker of diabetes, it is important to know the prevalence of new diabetes mellitus in patients with acute myocardial infarction.*

Key words: *Acute myocardial infarction, diabetes mellitus, Impaired oral glucose tolerance test.*

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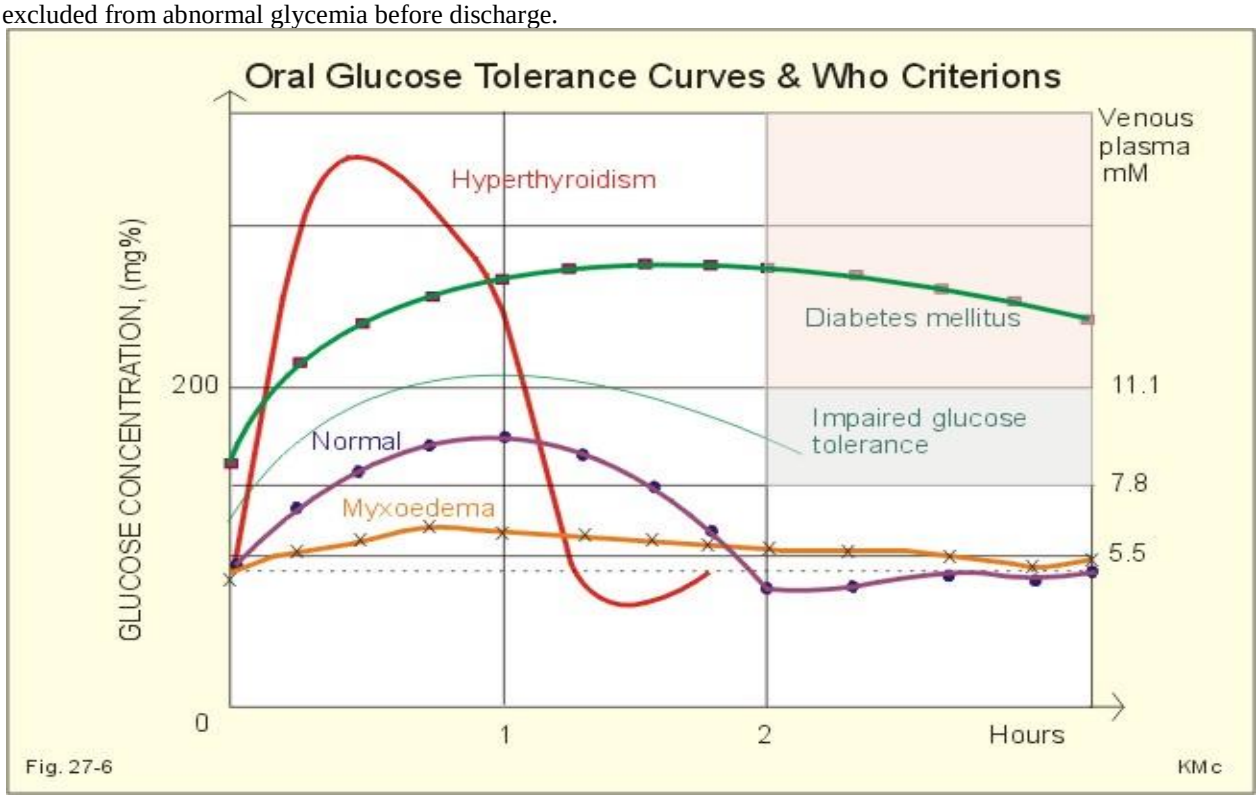
INTRODUCTION:

Myocardial infarction represents the myocardial necrosis development of a defined area caused by local ischemia. Mostly, atherosclerosis causes acute myocardial infarction due to thrombosis of coronary artery, which has already contracted. In most cases, the infarction occurs when the atherosclerotic plaque is broken, cracked, or ulcerated. Impaired glucose tolerance without diabetes and Diabetes are linked with high mortality in acute myocardial infarction patients. Fifty percent of the patients with acute myocardial infarction had impaired glucose tolerance or undiagnosed diabetes. In patients with impaired glucose tolerance and diabetes mellitus, physical activity normalizes the rate of several coronary heart diseases such as weight, blood pressure, blood lipids and cardiorespiratory compliance. In acute myocardial infarction the glucose abnormalities are very common. Impaired glucose tolerance and newly diagnosed diabetes mellitus are common in acute myocardial infarction patients. The cardiovascular disease patients have a worse prognosis than diabetic patients. For cardiovascular risk Diabetes mellitus is an important indicator. Blood sugar Random in patients with acute MI and ACS in patients with diabetes mellitus history and in the long term, both determine the short-term prognosis. Therefore, all acute myocardial infarction patients should be excluded from abnormal glycemia before discharge.

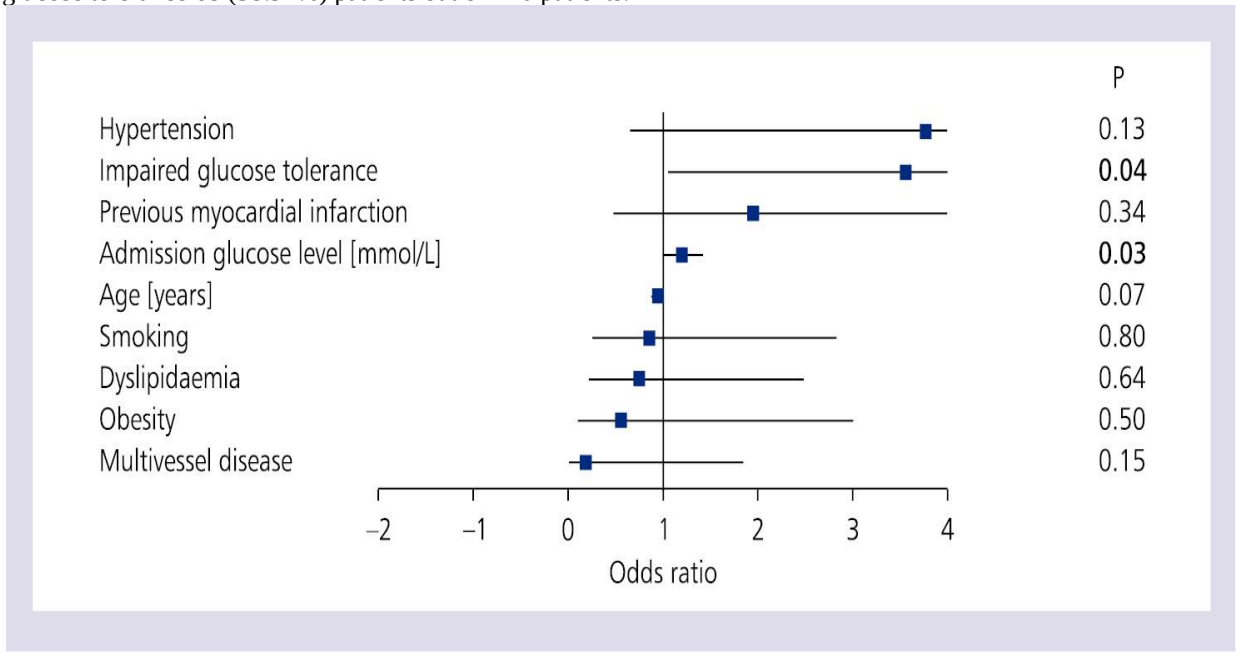
MATERIALS AND METHODS:

This Descriptive study was carried out on 172 volunteers in the Department of Medicine in collaboration with Cardiology Department in Services Hospital, Lahore for one year duration from April 2017 to April 2018. After the presentation of the NYHA class in acute myocardial infarction, patients of both sexes were evaluated within 24 hours, and ECG and all ages were assessed without physical activity. or patient who has been diagnosed with chest pain due to acute myocardial infarction, such as shortness of breath, palpitations, history, sweating also history, history and kidney etc. ECG, two patients with two consecutive edge and / or chest ST elevation, two ends and less than 2 mm, with at least 1 ST section and Troponin T and CK-like cardiac enzymes were applied. Each patient had a history of MB and chest pain and increased cardiac enzymes. After informed consent all patients were given oral glucose therapy. After testing the fasting blood glucose level, 75 g glucose was given. Blood sugar levels were verified for thirty minutes, one hour, two hours and three hours. In SPSS version 18.0, all blood sugar values were recorded and analyzed accordingly. To compile the results of glucose tolerance test Chi square test was applied.



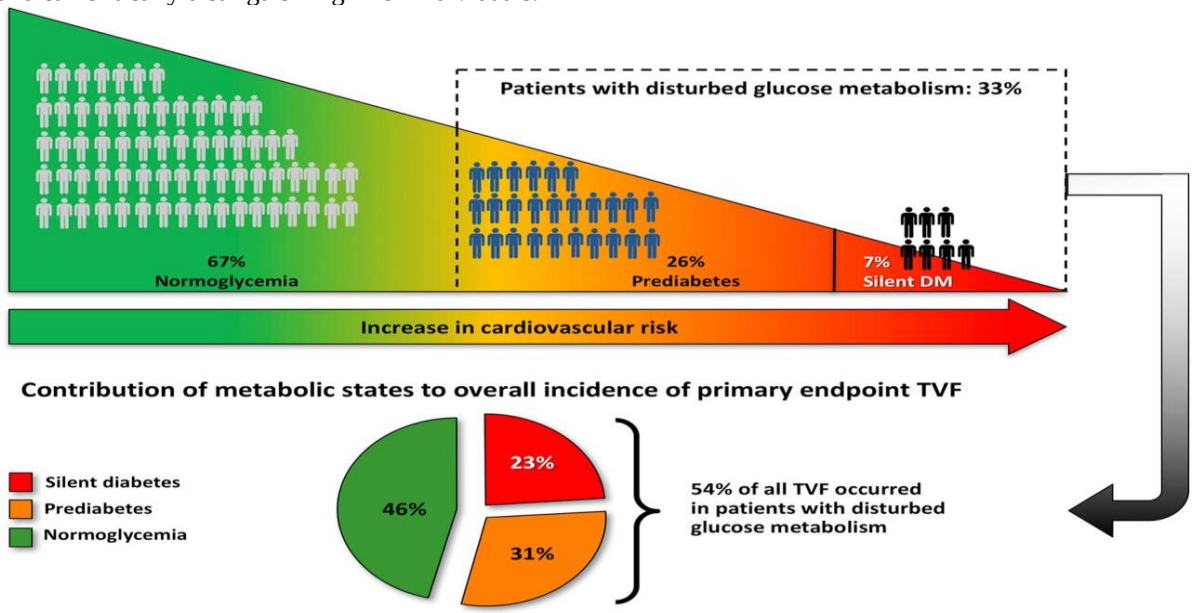
RESULTS:

51.92 ± 6.6 years was the mean age. There were 4 (1.75%) patients in the age group of 41-50 and 108 (63.53%) patients in the age group 31-40, 59 (34.71%). Patients with fasting blood glucose up to 110 mg / dl were between 111 and 126 mg / dl in 103 (60.6%) and 67 (36.4%) patients. The mean postprandial blood glucose tolerance test was 145.9 ± 16.01 mg / dL, 139.1 ± 16.03 mg / dL, 137 ± 16.08, after 75 g oral glucose for thirty mints, one hour, two hours and three hours. There were 104 (61.06%) patients with normal glucose tolerance and with impaired glucose tolerance 68 (38.94%) patients out of 170 patients.



DISCUSSION:

Milvidaite et al. found that 57.9% of patients diagnosed with normal glucose tolerance in the glucose tolerance test and in 10.1% of patients with diabetes. Wallander et al do similar study and found to be glucose tolerance, 34%, 31% and 34%, impaired glucose tolerance, diabetes mellitus and normal glucose tolerance. Diabetes mellitus patients and impaired glucose tolerance in patients have shorter survival significantly after myocardial infarction than those with normal glucose tolerance. It is common in patients with acute myocardial infarction. In acute myocardial infarction patients Abnormal glucose tolerance is an important indicator for future cardiovascular issues and can critically distinguish high-risk individuals.



CONCLUSION:

Postprandial glucose tolerance testing is an important determinant in determining the frequency of impaired glucose tolerance testing in patients with non-diabetic myocardial infarction.

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