

CASE REPORT ON MYOCARDIAL INFRACTION WITH DIABETICS MELLITUS AND SYSTEMIC HYPERTENSION

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Abstract:

Introduction: When the heart's blood flow is reduced, coronary arteries are restricted or interrupted; heart muscle injury occurs. A myocardial infarction is another name for this (MI). The most common symptom is chest discomfort, which can spread to the shoulder, back, neck, and jaw. Some of the other symptoms are Shortness of breath, nausea, and fainting. Around 30 % of the population is affected by typical symptoms. A catastrophic thrombus originates when an atherosclerotic plaque is discovered, forms in a coronary artery's inner lining and ruptures, completely occluding the artery and cutting off blood flow into the downstream. Diabetes patient's with autonomic neuropathy may experience infarction and atypical presenting symptoms, which makes diagnosis difficult and causes treatment to be delayed. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. As a result, the patient's blood pressure is high. Systemic hypertension has been diagnosed in the patient.

Main symptoms and essential clinical findings: This was a 51-year-old man who has had a myocardial infarction and has had diabetes and systemic hypertension in the past. His diagnostic evaluation included a complete blood count, electrocardiogram, ultrasonography, and 2D echo, as well as his history of systemic hypertension and diabetes mellitus.

The primary diagnostic, therapeutic intervention and outcome: He is 51 years old and has been diagnosed with a myocardial infarction, diabetes mellitus, and systemic hypertension. He is came in for myocardial infarction treatment. All of the necessary research was completed. His operation for coronary artery bypass graft surgery was completed.

Conclusion: This study focused on and treating patients based on their illness circumstances. All serious health issues must be avoided (ex, smoking, obesity). Detecting, preventing, and treating modifiable risk factors through early illness and chronic disease management.

Keywords: Coronary Artery Bypass Graft Surgery, Diabetes Mellitus, Systemic Hypertension , Myocardial Infarction., Risk Factors.

Introduction:

When the heart's blood flow is reduced, coronary arteries are restricted or interrupted; heart muscle injury occurs. Myocardial infarction is another name for this condition (MI). The most common symptom is chest discomfort, which can spread to the shoulder, arm, neck, and jaw. The pain would likely be similar to heartburn. (1). At that time, Shortness of breath, nausea, and fainting are some of the other symptoms. Around 30 % of the population is affected by Typical symptoms. A catastrophic thrombus originates when an atherosclerotic plaque is discovered, forming a coronary artery's inner lining ruptures, completely occluding the artery and cutting off blood flow downstream. Diabetes-related factors aid atherosclerotic plaque formation, and thrombus contributes to myocardial infarction. (2). Diabetes patient's with autonomic neuropathy may experience infarction and atypical presenting symptoms, which makes diagnosis difficult and causes treatment to be delayed. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. As a result, the patient's blood pressure is high. (3).

Systemic hypertension has been diagnosed in the patient. Diabetes patient's with autonomic neuropathy may experience infarction and atypical presenting symptoms, which makes diagnosis difficult and causes treatment to be delayed. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. As a result, the patient's blood pressure is high. Systemic hypertension has been diagnosed in the patient. Around 30 % of the population is affected by typical symptoms. (4). A catastrophic thrombus originates when an atherosclerotic plaque is discovered, forms in a coronary artery's inner lining and ruptures, completely occluding the artery and cutting off blood flow into the downstream. Diabetes-related factors aid atherosclerotic plaque formation and thrombus; both of these factors play a role in a myocardial infarction. (5). When the heart's blood flow is reduced, coronary arteries are restricted or interrupted; heart muscle injury occurs. A myocardial infarction is another name for this (MI). The most common symptom is chest discomfort, which can spread to the shoulder, back, neck, and jaw. The pain will likely feel like heartburn, at times. Some of the other symptoms are shortness of breath, nausea, and fainting. When the heart's blood flow is reduced, coronary arteries are restricted or interrupted; heart muscle injury occurs. (6). A myocardial infarction is another name for this (MI). The most common symptom is chest discomfort, which can spread to the shoulder, back, neck, and jaw. The pain will likely feel like heartburn, at times. Some of the other symptoms are shortness of breath, nausea, and fainting. Around 30 % of the population is affected by typical symptoms. A catastrophic thrombus originates when an atherosclerotic plaque is discovered, forms in a coronary artery's inner lining and ruptures, completely occluding the artery and cutting off blood flow into the downstream. (7). Diabetes-related factors aid atherosclerotic plaque formation, and thrombus, both of these factors play a role in a myocardial infarction. Diabetes patient's with autonomic neuropathy may experience infarction and atypical presenting symptoms, which makes diagnosis difficult and causes treatment to be delayed. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. As a result, the patient's blood pressure is high. Systemic hypertension has been diagnosed in the patient. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. As a result, the patient's blood pressure is high. Systemic hypertension has been diagnosed in the patient. Diabetes patient's with autonomic neuropathy may experience infarction and atypical presenting symptoms, which makes diagnosis difficult and causes treatment to be delayed. Systemic hypertension has been diagnosed in the patient. Increased blood flow as a result. (8). As a result, the patient's blood pressure is high. Systemic hypertension has been diagnosed in the patient. Around 30 % of the population is affected by typical symptoms. At that time, Shortness of breath, nausea, and fainting are some of the other symptoms. Around 30 % of the population is affected by Typical symptoms. A catastrophic thrombus originates when an atherosclerotic plaque is discovered, forming a coronary artery's inner lining ruptures, completely occluding the artery and cutting off blood flow downstream. (9).

Patient information:

A 51 year old case of myocardial infarction and had diabetes mellitus with systemic hypertension. H/O diagnostic procedure of coronary artery bypass graft surgery dated on 05/12/2021. k/c/o diabetes mellitus with body mass index. (BMI) 24.67Kg /m².

The primary concern and symptoms of the patient:

A 51-year-old male with myocardial infarction with a known case of diabetes mellitus with systemic hypertension was admitted for coronary artery bypass graft surgery procedure (CABG).

Medical, family, and psycho-social history:

There was no previous history of bowel and bladder symptoms. He is a myocardial infarction disease with a known case of diabetes mellitus with systemic hypertension. In his history of coronary angiography on yr. 2021. The patient lives in a nuclear family. The patient psychosocial history is well good. Relevant past intervention with outcomes were not reported.

CLINICAL FINDINGS:

On general examination, the patient was conscious oriented and associated high-risk factors of diabetes mellitus with systemic hypertension. The patient was diagnosed myocardial infarction with a known case of diabetes mellitus with systemic hypertension. And his procedure of CABG was done on the yr. 2021.

The medication started for a myocardial infarction is Tab. Eco-friendly 75 Mg OD, Tab. Clopitab 75mg OD, Tab. Alprax 40 mg, the medication started for hypertension Tab. Amlodipine 5mg OD and for Diabetes mellitus (DM) Inj. Insulin is continues after admission. His all radiological investigation was done, and ultrasonography and chest x-ray and complete blood investigation were done after his admission.

Diagnostic Assessment:

A repeated electrocardiogram was done, a chest X-ray was done, and all blood investigations were done, urine tests were also done... a 2D echo was done.

Diagnostic Challenges: There were no diagnostic challenges were faced.

Diagnosis: Myocardial infarction with a known case of diabetes mellitus with systemic hypertension for CABG procedures.

Therapeutic Intervention:

In the present case study, he received Tab. Clopidab 75Mg OD, Tab. Ecosprin 75Mg, Inj. Insulin, Tab. Amlodipine 5Mg OD, and all other investigations done for CABG procedure his CABG procedure was done.

Changes in therapeutic interventions: No, any changes were reported in therapeutic intervention

Follow up and outcomes:

The patient health condition progress is good. He was given discharge on the 10th day after the CABG procedure. A follow up was taken on the 15th day after discharge. He was advised to avoid heavy work strictly. Recommended taking complete bed rest. There is completely restricted for junk food, and oily food and travelling.

Intervention adherence and tolerability : The intervention was well adhered to and well tolerated by the patient.

Adverse and unanticipated events: No adverse events were noted.

Discussion:

The diagnostic 2D echo and electrocardiogram play a critical role in evaluating and subsequent management strategy. It explains how to see the actual movements of the heart anatomy. (10). On the monitor, it appears cone-shaped, and the real-time motion of the heart anatomy can be seen. Myocardial infarction ECG localised ion, acute coronary occlusion management, and medical management of myocardial infarction are covered. (11).

A myocardial infarction is a potentially fatal disorder caused by an interruption in the heart muscle receiving blood flow. (12). Blockage in one or more of your heart's arteries, which can be caused by a variety of circumstances, might result in a lack of blood flow. (13). According to the motion of normal coronary arteries, which generally encompasses vessels with no luminal abnormalities or arteries with some degree of stenosis, the overall prevalence rate of MI with normal coronary arteries is minimal, ranging from 1% to 2%. The rate of occurrence appears to be connected to the age and gender of the patient, with younger and female patients having higher rates. (14-17). Angiographically normal coronary arteries were detected in 7% of those under 45 yr. Old who had sustained an acute MI in studies. Based on our patient's clinical characteristics and diagnostic test results, because there was no coronary atherosclerotic disease, hypercholesterolemia, or symptoms indicating ischaemia, we chose to keep the ACE inhibitors and stop taking the aspirin, statin, and beta-blocker. (18-23).

Conclusion:

CABG is the most effective operation for managing and treating individuals with diseasemyocardial infarction.

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