

Case Report on Coronary artery disease with TVD (Triple Vessel Disease)

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ABSTRACT:

Introduction: Triple vessel coronary artery disease (CAD)(TVD), that too in a diabetic patient means, invariably coronary artery bypass (CABG). If the patient is symptomatic, there is no problem in arriving at a decision. If the patient doesn't have any symptoms and coronary angiogram reveals TVD, there's a dilemma of what should be done. "Even in patients with left main and severe three -vessel disease, proof is lacking that prophylactic ment that appeared during a book on cardiology. If the patient is symptomatic to start out with, and becomes asymptomatic after surgery, that's a yardstick to measure the efficacy of the treatment, but what happens in people who are asymptomatic to start out with and remain asymptomatic after the procedure. The next case is one such case where the patient was asymptomatic throughout, which caused a dilemma in his further management, **Present complaints and Investigation:** The male patients 65-year-old who was apparently admitted in AVBRH on dated 13/07/2021 with complaints that chest pain and palpitations since 4 days, After physical a examination and investigation. The doctor diagnosed the patient with coronary artery disease (CAD) with triple vessel disease (TVD) and he was treated with anti-inflammatory and blood thinning/ antiplatelet agents. **The main diagnosis, therapeutic intervention and outcome:** A case of coronary artery disease with triple vessel disease has been diagnosed following a physical examination and investigation by a doctor an Chest: bilateral equal air entry , on added sound, CVS: S1+S2+M, Angiography , the doctor diagnosed the patient with coronary artery disease (CAD) with triple vessel disease (TVD) and he was treated with antiplatelet also diabetes panel. **Conclusion:** The patient was admitted to the A.V.B.R. Hospital with chief complaint was chest pain and palpitation the patient received all necessary treatment and medicine. The condition of the patient had improved.

Keywords: Asymptotic, coronary artery disease, diabetes triple-vessel coronary artery disease.

Introduction and Background:

The coronary artery disease bypass graft (CABG) is the treatment of choice in diabetic patients with triple vascular disease (TVD). If a patient has TVD but is asymptomatic, the dilemma is whether to continue medicinal therapy or choose for revascularization. Despite risk factors such diabetes, resistant

hypertension, and TVD, the patient remained symptom-free during the case study. The long-term prognosis of 198 patients with triple vascular disease (TVD) who were treated medically was studied. The patient had severe (75 percent or higher) stenosis lesions in all three major coronary arteries when he had coronary angiography between September 1973 and February 1984. Revascularization is of any value if the patients are asymptomatic," according to the mean follow-up period of 8.4 years. The survival rates for 5-10 years were 80.7 percent and 64.2 percent, respectively.¹

Heart is located in the middle mediastinum, within the pericardium, behind the sternum's body and the second to sixth costal cartilages, between the fifth and eighth thoracic vertebrae. A third of it is posterior to the sternum, to the right of the median plane and spinal column.

Coronary artery disease:

Coronary artery disease is a narrowing of the coronary arteries that inhibits proper blood supply to the heart muscle. Atherosclerosis is the most common cause, and it can proceed to the point where the gut muscle is damaged due to a lack of blood flow. Infarction, arrhythmias, and coronary failure can all result from such injury. Narrowing or blockage of the artery or arteries supplying blood to the heart muscle (ATHEROSCLEROSIS)

Patients who smoke or who have diabetes, hypertension, or high blood cholesterol or fat levels are more likely to develop coronary artery disease.

There are three major coronary arteries in the heart. Depending on the number of confined vessels, patients are classified as having single, double, or triple-vessel illness. When the narrowing becomes critical, the patient can develop symptoms such as chest pain or shortness of breath (ANGINA) . The cholesterol plaque that is causing the obstruction can burst suddenly, resulting in a blood clot. This blood clot will cut off blood supply to the heart muscle, causing myocardial infarction (also known as "heart attack").

Severe chest pain, shortness of breath, and palpation of the first two branches of the aorta in the sinus of Valsalva are all possible symptoms. The left coronary artery (also known as the left main stem) is quite short and separates into the LAD and the circumflex artery (LCX) The phrase "triple vessel disease" refers to the constriction of the three major blood arteries in the gut due to atherosclerosis (RCA, LAD, and LCX). Heart attack risk is raised in people with severe triple vessel disease and left main stem stenosis.²

Patient specific information:

Patient Information:

A 65years old male with CAD with TVD admitted on dated 13/07/21 that chest pain and palpitations giddiness, cold sweaty hands since 4 days for further treatment. The blood supply to the heart comes from the right coronary artery (RCA) and left coronary artery ,A 65 year old male was admitted to A.V.B.R. Hospital on 13 July 2021, with the Major complaint of chest pain and other symptoms and the doctor diagnosed her with CAD and TVD following a physical examination and investigation.

Primary concern and symptoms of Patient: Present case visited AVBRH with complaints pain and palpitations giddiness, cold sweaty hands since 4 days

Patient past medical and surgical history, psychosocial history: patients suffering CAD with TVD ,The patient having no any past medical and surgical history. Present case belong nuclear family, he was mentally stable, his oriented date time place and he maintain good relationship with family members, he maintained good personal hygiene. in patients family there is no hereditary history like , Asthma, tuberculosis, but patient has diabetes mellitus.

Habits:

Watching TV, reading newspaper and sleeping and patient don't have any bad habit like chewing tobacco and smoking.

Physical Examination and Clinical findings: general condition-not satisfactory

State of consciousness-conscious

Body built-thin

Hygiene-good

Vital parameter-

Blood pressure-158cm

Temperature-37 c

Pulse-79/min

Respiration-22 breaths/min

History collection

- Physical examination
- Blood test
- Chest : bilateral equal air entry , on added sound.
- CVS: S1+S2+M
- Angiography

Important clinical finding:

Electrocardiogram: An electrocardiogram, or ECG, is a test that captures the electrical signals in your heart as they pass through it. This can be done in a hospital or outpatient setting, or a patient can be fitted with a Holter monitor, which is a sort of portable monitor that captures electrical signals for an extended period of time and is worn by the patient while going about their regular activity.

Echocardiogram: An ultrasound machine is used to do an echocardiography. The cardiac tissue is visualised during the exam, allowing the physician to assess whether all regions of the heart are operating properly and contributing normally to the heart's pumping action.

Blood Investigation- heamoglobin 12.9gm, RBCs count- 4.29million /mmc , WBC count-8900/mmc, platelets count- 2.94/mmc.³

Timeline:

He took treatment in A.V.B.R. Hospital and he got the proper treatment. Taking proper medication and now he has been seen the improvement of condition.

Diagnostic Assessments :

Diagnostic method-

On the basis physical examination and investigation, diagnosed the patient with Coronary artery disease (CAD) triple vessel disease (TVD)

Blood investigation : heamoglobin-12.9 gm, RBCs count -4.29 million/mmc, WBC count-8900/mmc , platelets count- 2.94/mmc

Diagnostic challenges:

No any challenges during diagnostic evaluation.

Diagnostic reasoning:

All investigation is done.

Prognosis:

This case prognosis was satisfied

Therapeutic Intervention:

- Present case took the CAS and TVD treat with anti-inflammatory and antiplatelet agents given as injection
- Insulin TDS
- Tab. Ecosprin 150 mg HS
- Tab. Clopitab75 mg HS
- Tab. Atorin 40 mg HS
- Syp. Duphalac 15m HS

Nursing perspective: Monitor vital signs and checked B.P per hourly and checked RBCs because patient has diabetic mellitus also administered insulin maintained intake and output chart and provided adequate rest and sleep to the patient.⁴ Administered medication according to doctor order. Fluid replacement (NS) was administered. Check vital sign and blood pressure every hour, also given to RBCs every four hour maintaining the patient's intake and output chart, as well as ensuring that he gets enough rest and sleep. Administered medicine as directed by the doctor (because the patient had a chest pain, he was given coronary artery bypass graft CABG)

Follow up and outcomes:

Follow up:

Patient advice to daily exercise, and avoid high cholesterol diet, given healthy diet. Regular checked up , maintained the personal hygiene as well as take it properly medication by Dr order.

Outcomes:

In-spite all care patient progress good, he was advised to strictly avoid heavy work, advised to take complete bed rest

Intervention adherence and tolerability: Patients took all prescribed medication regularly, he follow diet, No, any intervention adherence. Patient tolerated treatment properly.

Discussion:

Normally, TVD that too during a case of diabetes, the treatment may be a CABG arteria coronaria bypass graft and there's no ambiguity during this most of the will be symptomatic with Angina pectoris or exertional dyspnea and treatment with CABG would relieve their symptoms. Patient are going to be happy because the treatment would improve their activities, and therefore the doctor would be happy for obvious reasons. The screening guidelines of the American Diabetes Association (ADA) way back in 1992 reported that asymptomatic diabetic factor.

This assumption was disproved by a study in 2006, which showed that the occurrence of myocardial perfusion defects and CAD was similar whether the patient had one or more risk factors and therefore the present patient had three risk factors and TV Dents with more risk factors were more likely to possess significant CAD than one risk The Screening asymptomatic diabetic patients with a high ASCVD risk is not suggested, in part because invasive revascularization would provide a similar benefit. This patient was getting optimum therapy for his diabetes and his BP which was resistant in nature and was in tolerably good control with a number of antihypertensive drugs.⁵

The link between coronary vessel dominance and prognosis is a subject of little research. As a result, the goal of this study was to see if coronary vessel dominance had any predictive value in relation to major coronary artery disease. CAD among patients referred for coronary angiography using computed tomography (CTA).⁶

Objective The impact of coronary dominance on in-hospital outcomes in acute coronary syndrome (ACS) patients following percutaneous coronary intervention was investigated in this study (PCI). Background Previous research has revealed that left dominant coronary artery disease is more common than right dominant coronary artery disease. In patients with coronary artery disease, anatomical variations are linked to a worse prognosis.⁷ A number of related studies were reviewed⁸⁻¹³.

Conclusion:

This is the instance of an asymptomatic diabetic with hypertension who had TVD and nearly normal perfusion. Coronary artery disease with triple vascular disease is a severe kind of coronary artery disease (CAD). When the primary blood arteries supplying the stomach become injured or sick, CAD develops. Inflammation and cholesterol deposits CAD (coronary artery disease) is caused by two basic causes in the heart. Following the research, it was determined that the patient had coronary artery disease (CAD) with triple vessel disease, which was treated with cholesterol. Ecosprin is a non-steroidal anti-inflammatory medicine that also has antiplatelet properties. It works by stopping platelets from clumping together, which reduces the risk of dangerous blood clots forming. Atorin 40 mg tablet is a type of drug that works by lowering harmful cholesterol levels. Beta-blockers are Prolomet 50/5(xL50). It's used to treat excessive blood pressure and heart rhythm irregularities. History taking, physical examination, electrocardiograms, and angiography are all part of the diagnostic process. Also, x-ray is a cheat. Medical supervision would have sufficed. Except in the case of the asymptomatic patient with TVD on adequate medical care, revascularization has no effect.

Conflict of interest: No there are no conflict of interest

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