Case report

HIV positive client with Coronary Artery Disease and Tricuspid Valve Defect: A Case Report.

Abstract.

In the modern world, coronary artery disease (CAD) is the leading cause of mortality, accounting for nearly 1 in 5 fatalities. The importance of this disease's morbidity, mortality, and socioeconomic impact makes quick accurate diagnosis and cost-effective care of CAD crucial. This in-depth analysis of the literature reveals crucial components in the diagnosis, risk assessment, and treatment plans for individuals with chronic CAD. Among cardiovascular illnesses, tricuspid valve disease (TVD) is typically little talked about while having a sizable morbidity and death rate. There aren't many research accessible in our nation that evaluate the many facets of TVD. Objective: To evaluate the type, duration, severity, hemodynamic changes, morbidity, and mortality of TVD, whether it is present alone or in combination with other cardiac disorders. Many of the clinical manifestations of the disease can be attributed to the severe immunological deficiency that occurs in HIV/AIDS patients. Opportunistic infections, autoimmune diseases, and cancer are more common because the virus damages the immune system. Additionally, clinical symptoms caused by the virus itself may show up. For instance, in at least 50% of patients, clinical symptoms appear during the primary illness, which begins a few weeks after the initial HIV encounter, often as a mononucleosis syndrome. HIV-related issues are rare in those who have kept their immunity. Here I present the scenario of 60 years old geriatric patient with complaint of having chest and epigastric pain, having positive complaints of Nausea and Constipation, while Auscultating the chest there was presence of murmur sound from the heart and there was also crackling sound from the lungs, there were abnormalities found in the ECG on that condition patient was diagnosed with the mentioned diseases. Supportive treatment were given for the management of mentioned case.

Categories: Emergency Medicine.

Keywords: Tracheobronchial tree, Build up, Chamber, Hypersensitivity, Inflammatory reaction.

Introduction.

The narrowing of the big blood channels that carry oxygen to the heart is what causes coronary artery disease, often known as coronary heart disease or CHD. Extremely narrow arteries maybe source of chest pain and apnea during heavy exercise. If a coronary artery suddenly becomes completely blocked, a heart attack might happen. Two other health problems linked to CAD include heart failure and irregular pulse. A range of therapies can reduce both the symptoms and the likelihood of issues(1).

Heart valve disorders include tricuspid valve disease (valvular heart disease). The valve that connects the right ventricle and right atrium, the two chambers of the

right heart, is malfunctioning. The heart has to work harder as a result to pump blood to the lungs and the rest of the body. There are various kind of tricuspid valve disease they are-

- Tricuspid Valve Regurgitation.
- Tricuspid Valve stenosis.
- Tricuspid Atresia(2).

Tuberculosis is an infectious illness that may be severe and mostly affects the lungs (TB). Tiny droplets of bacteria are discharged into the air when someone coughs or sneezes, which can cause TB to spread. The body's immune system normally responds by enveloping the bacterium after it has been breathed, creating a tubercle that holds the germs and aids in preventing its spread. In most instances, the bacteria will die; in rare circumstances, however, the bacteria might survive, go latent, the affected person may experience an active sickness years or even decades after becoming infected(3).

A sexually transmitted infection (STI) is HIV. Additionally, sharing needles, injecting illicit drugs, and coming into touch with contaminated blood are all ways it can spread. Additionally, it can pass from mother to child throughout pregnancy and delivery. If HIV is left untreated, it can slowly erode your immune system over time, eventually resulting in AIDS(4).

The tracheobronchial tree's hypersensitive, inflammatory reaction to a variety of stimuli results in bronchial asthma, an airway illness that causes reversible constriction of the airways. The bronchial asthma patient is divided into the asthma episode, Chronic or acute on chronic asthma, severe asthma. Key cause of allergens asthma are allergic reaction, air pollution present in the environment. During the severe asthma the patient is severely dyspnoeic, sits in upright posture fixing the shoulder gridle(5).

Too-high blood glucose levels are a sign of the metabolic condition diabetes mellitus (DM). There are several different types of DM, including type 1, type 2, maturity-onset diabetes of the young (MODY), gestational diabetes, neonatal diabetes, and secondary causes brought on by endocrinopathies, steroid use, etc. The two main kinds of DM are type 1 diabetes mellitus (T1DM) and type 2 diabetes mellitus (T2DM), both of which are primarily caused by inadequate insulin production and/or action. Contrary to T1DM, which is believed to occur in teens or young adults, T2DM is anticipated to afflict middle-aged and older people who have persistent hyperglycaemia as a outcome of bad lifestyle and dietary decisions(6).

Case Presentation.

A male patient of 60years old was bought to AVBRH casualty on 10th November 2022 by his family with a chief complaint of having chest and epigastric pain since 2 days. Patient is also having positive complaints of Nausea and Constipation. Patient is known case of DM, Tuberculosis, Bronchial Asthma, Hypertension and HIV positive since 3 years.

Patient was shifted to MICU then physical examination as done, there is no such abnormality present in the physical examination except rise in blood pressure i.e from head to toe of my patient. On Auscultating the chest there was presence of murmur sound from the heart and there was also crackling sound from the lungs. Physician was advised for radiological examination i.e MRI, Chest X Ray, ECG and CBC of patient. When the reports were out there was no any abnormal finding in the reports, only there was abnormal ECG reading "excessively big Q waves, a smaller R-wave, and notch QRS complexes."

When patient was in MICU all the required Nursing Care and medical were given, the patient was on following medication Inj. Piptaz 4.5mg *TDS, Inj. Doxy 100mg* BD, Inj. PAN 40mg* TDS, Tab. Clopidogrel 75mg *OD, Tab. Axcer 90mg* BD. After giving the required dose of medication the patient showed the positive growth in prognosis.

Discussion.

Compared to non-diabetics, who have a prevalence of 11%, diabetics have a CAD prevalence of 21.4%. In the early years of the twenty-first century, it was an uncommon cause of death. Even though it is still the major cause of mortality worldwide, the incidence of CAD fatalities reached a high in the middle of the 1960s before starting to fall(7).

This condition is referred to as tricuspid regurgitation. The most prevalent valvular heart condition, according to statistics, is tricuspid valve insufficiency, which affects 65 to 85% of persons(8).

Chimpanzees are susceptible to the simian immunodeficiency virus infection. It's likely that humans contracted the disease when these chimpanzees were murdered for food and their contaminated blood came into contact with people. HIV first spread slowly and over a lengthy period of time in Africa before moving on to other parts of the world. Since at least the middle to the end of the 1970s, the virus has been widespread in the US(9).

Different kinds of diabetes mellitus, including type 1, type 2, gestational diabetes, and other variants, are contrasted in phases of diagnostic criteria, etiology, and genetics. Reputable researchers and biomedical research teams have recently focused a lot of their emphasis on the molecular genetics of diabetes. It covers a wide range of gene mutations and single nucleotide polymorphisms that impact these processes, as well as the evaluation, regulation, and purpose of pancreatic cells at different levels. The most important advancements in diabetes molecular understanding in comparison to older kinds of diabetes(10).

Conclusion.

Coronary Artery diseases is common cause in adult, when they reach the old age stage of there life. It is good to take the preventable measures to avoid the heart related diseases and if diagnosed with the heart diseases patient should get the required treatment and on the right time otherwise they may develop with complication and it may be life threatening. When I was allotted the patient I had done all the mentioned nursing care like

maintaining the hygiene of the patient, changing the patient position to avoid the bed sore, administration of medication. My patient is under medical observation and medication is showing the positive effect towards his health.

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