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Angina Disease Analysis

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Abstract
The patient is male and aged 57. Presentations include relief when sitting upright and difficulty in breathing when lying by the back. Additional presentations include occasional epigastric pain, frequent dyspepsia with nausea, fatigue, and, upon exertion, gradual onset of dyspnea. The patient's presentations entail: R: 20, T: 98, P: 88, and BP: 180/110.

Keywords: Angina, Domino and Baldor etc.

1 Introduction

According to Domino and Baldor (2016), congestive heart failure (primary) is acquired and occurs when an individual's heart fails to maintain adequate cardiac output responsible for meeting one's body metabolic demands. Specifically, it has been documented that ventricular dysfunction plays a leading role in most of the cases of congestive heart failure, arising from systolic dysfunction or myocardial infarction; as well as systolic and diastolic dysfunction or hypertension (Prins, Neill, Tyler, Eckman and Duval, 2015). It has also been documented that congestive heart failure entails various abnormalities such as a primary muscle disease, high output failure, the loss of muscle, or pressure and volume overloads. When the heart muscle is marked by reduced contractility, cardiac output results and the eventuality is a failure to meet the body's peripheral demands. Factors acting as predictors of the congestive heart disease include increased heart rate (due to increased circulating catecholamines and sympathetic tone), reduced cardiac output due to increased vascular resistance, dyspnea and pulmonary congestion (due to an increasing in the left atrial filling pressure), and decreased muscle contractility (McCance, Huether, Brashers and Rote, 2013). Hence, Jesses is most likely suffering from congestive heart failure because of his age and the signs and symptoms exhibited. Overall, the diagnosis of congestive heart failure is informed by symptoms pointing to reduced cardiac output, including weakness and fatigue.

2 Methodology

Heart attack has been reported to result from a significant reduction in the supply of blood to the heart, especially when the critical threshold is exceeded as mechanisms responsible for myocardial cellular repair are overwhelmed, yet their role lies in myocardial ischemia, a process of maintaining normal operating function. The eventuality is a reduction in the delivery of nutrients and oxygen to the patient's myocardium via the means of coronary circulation, as well as an increase in the body's myocardial metabolic demand (Goroll and Mulley, 2014). With the supply of myocardial nutrients and oxygen interrupted, coronary occlusion is more likely to occur because of the superimposition of the thrombus on an unstable or ulcerated atherosclerotic plaque (Domino and Baldor, 2016). Myocardial infarction has also been suggested to be precipitated by a fixed coronary artery stenosis of high grade (at >75%) due to coronary vasospasm-linked dynamic stenosis or atherosclerosis. According to Prins, Neill, Tyler, Eckman and Duval (2015), the outcome is a limited supply of nutrients and oxygen. Some of the pointers of increased myocardial demand entail severe aortic valve stenosis, severe hypertension, and extreme physical exertion. Atypical and typical signs of myocardial infarction have also been documented. For example, severe intensities of symptoms and acute onsets have been associated with younger individuals while intermittent symptoms and gradual onsets have been associated with older individuals. Similarly, atypical

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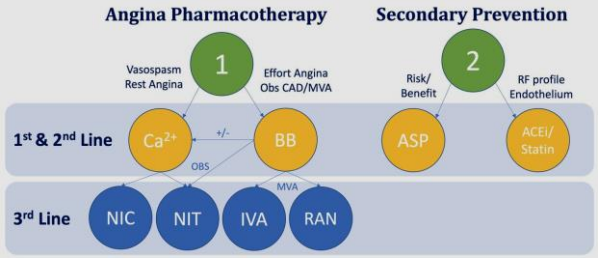
symptoms have been linked to women while typical symptoms continue to be associated with men (McCance, Huether, Brashers and Rote, 2013). A combination of typical and atypical symptoms includes headache, numbness in the arms, dyspepsia, palpitations, sweating, dizziness, diarrhea, vomiting or nausea, fatigue, and abdominal and leg pain. Others include pain in the chest, shoulder or arm, and jaws, as well as dyspnea (Goroll and Mulley, 2014). For the case of Jesses, symptoms presented include fatigue, abdominal or epigastric pain, nausea, dyspepsia, fatigue, and gradual onset of dyspnea (upon exertion). The patient's blood pressure is also elevated and the combination of these factors depicts the presence of myocardial infarction. It is also worth noting that the elevation in Jesse's blood pressure may be a compensatory mechanism responding to myocardial infarction.

3 Results and Discussion

According to Domino and Baldor (2016), angina occurs in the form of an acute coronary syndrome. This condition is linked to myocardial ischemia and predicts a severer heart disease that may cause heart failure, arrhythmias, or heart attack. Indeed, Jesse depicts factors that could be predictors of angina. For instance, the patient experiences shortness of breath while lying by his back but reports relief when sitting upright. According to Prins, Neill, Tyler, Eckman and Duval (2015), this outcome predicts or forms a sign of unstable angina. It is also worth noting that dyspepsia is a common sign of angina but continues to be mistaken as a predictor of chest pain (McCance, Huether, Brashers and Rote, 2013). Similarly, Jesse is seen to experience a gradual onset of dyspnea, fatigue, and nausea. As observed by Goroll and Mulley (2014), the three factors constitute signs of unstable angina. Unstable angina is also seen to arise in Jesse's case as a tertiary effect or outcome accruing from two critical factors. Firstly, the patient presents with blood pressure, an aspect that constitutes the primary factor. The secondary factor, as observed by Domino and Baldor (2016), is that the blood pressure is symptomatic of the coronary disease arising from atherosclerosis. The tertiary impact is the occurrence of unstable angina because most of the existing scholarly outcomes highlight that atherosclerosis forms one of the common causes responsible for the occurrence of unstable angina (Prins, Neill, Tyler, Eckman and Duval, 2015).



Jesse's admission process will be marked by an immediate consideration of the high or elevated blood pressure, an issue that attracts immediate attention. Specifically, the elevated blood pressure points to a possibility that the patient is at risk of a heart attack. Blood tests will revolve around Troponin levels, Myoglobin, CK, CRP, glucoses, electrolytes, and CBC. Besides, a chest X-ray will be conducted to determine possibilities of a heart failure. According to McCance, Huether, Brashers and Rote (2013), EKG depicts the timing and strength of electrical signals passing through one's heart and tends to predict potential damage from a current or previous heart attack. For the case of Jesses, an additional procedure will entail echocardiogram to determine the nature of patterns regarding the manner in which the heart beats, a procedure that will aid in determining possible reductions in blood flow. Lastly, stress determinations will aid in establishing possible abnormal signs associated with the coronary heart disease. From the treatment objective, immediate attention lies in the supply of oxygen while long-term interventions will involve a dominance of anti-hypertensive medications, a procedure concurred by Goroll and Mulley (2014).

4 Conclusion

The swelling of Jesse's ankles is likely to be symptomatic of advancement in heart failure. Specifically, the swelling is most likely to point to the heart failure on the patient's right side. According to the results, acute exacerbations of the patients' heart failure are predicted by periods of de-compensation and the latter is shown via weight gain, worsening edema, and increased dyspnea. A second explanation is that the swelling of ankles could suggest that Jesse has failed to follow a proper low sodium diet and even engaged in other medication non-compliances. For such a patient, what is suggested is the need for medication

adjustment. To prevent further advancements of congestive heart failure, chest X-ray and physical exams are necessary for the case presented.

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