Stage A Heart Failure

Student's Name

Course

Instructor

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Date

Explain the pathophysiology of Stage A heart failure.

Stage A heart failure refers to a condition refers to pre heart problem characterized by high chances of developing heart failure since the patient might have been having a family history. The pathophysiology for this condition is developed as a result of the heart's incapability to provide tissues with enough blood thus resulting in congestion. More so, the heart condition can lead to abnormalities such as diastolic function as well as systolic. Importantly, the primary abnormality can create a change in cardiomyocyte function. However, cardiac structural issues include valvar disorder and congenital defects. In reference to the American Heart Associate Stage A heart failure a patient might be having a risk of developing heart issues even though the heart does not experience structural adjustments.

.**What is the rational drug choice for treatment of this individual?**

Patients with heart issues are recommended to use the beta block as well as an angiotensin-converting enzyme inhibitor (ACE inhibitor). According to the presented case study, the use of ACE inhibitors is essential since the main idea will be to reduce preloading and afterload thus preventing the heart from overworking to avoid restructuring. Besides, the use of this drug is essential since it leads to improvement of symptoms, lowering mortality rate, and increasing life expectancy to all patients. Still, ACE inhibitor drugs are known drug classes that address various pathological mechanism that involves Stage A heart failure (Woo & Robinson, 2020). At this point, the patient will take Lisinopril 2.5 mg on daily basis and later increase the dose to not more than 10 mg. The targeted dosing to the patient ranges from 20-40 mg daily (Lexicomp, 2017).

Address the patient's concern about halos should digoxin be prescribed.

According to research, Digoxin is not considered as a first-line remedy for treating Stage A heart failure. The mode of action of Digoxin is not at optimal levels when the ejection fraction is below 40%. The presence of Halos is an indication of digoxin toxicity. In fact, digoxin is considered to have a narrow therapeutic level starting from 1.0-2.0 per ml. Mostly, the toxicity levels occur to patients in 25% of cases. According to the pharmaceutical lens, Digoxin is known to have a 26-48 hours half-life that is later cleared by the kidneys. Also, the renal function could be a vital aspect to consider while making dosing to a patient. The use of Digoxin should be used with cautions by considering diuretics and calcium channel blockers (Woo & Robinson, 2020).

Are there gender considerations related to medication treatment in this scenario? If so, what are they? For example, do men and women differ in their side effect profile and/or complications (for instance, from digoxin)?

The gender-based issue is a critical factor to consider while treating heart failure as presented in the case study. In this case, most of the men show different symptoms while compared to the females. However, women show a delayed response while seeking heart care contrary to men. In fact, women show various complications such as recurring cardiac events, getting hospitalization, and experiencing another heart failure than men. In comparison, women experience more deaths with a span of five years, experience atypical symptoms that including nausea and fatigue than men. On the other hand, men experience classic symptoms and they strive to seek medical care in such cases. According to yearly health statistics, there are high numbers of women getting readmitted due to heart issues than men thus increasing mortality rates. However, this is considered to be attributed to an inadequate understanding of heart symptoms (Son, & Won, 2020). According to Woo and Robinson 2020, it is authored that women have poor faring on digoxin but they lack elaboration.

Discuss monitoring of the pharmacological agent(s) selected.

There is a various aspect that is required to be closely monitored while watching pharmacological agents. Such pharmacological agents include WBC values, blood pressure, fluid status as well as weight change. Still, Creatinine should be maintained at the optimal levels. In cases where the patient has renal impairment issues, urine protein should be examined and monitored prior to initiating therapy as well as conducting dosage changes (Biddle et al., 2020).

References

Biddle, C., Fallavollita, J. A., Homish, G. G., Giovino, G. A., & Orom, H. (2020). Gender differences in symptom misattribution for coronary heart disease symptoms and intentions to seek health care. Women & Health, 60(4), 367–381. https://doi.org/10.1080/03630242.2019.1643817

Lexicomp. (2017). Drug information handbook for advanced practice nursing (17th ed.).

Woo, T. M., & Robinson, M. V. (2020). Pharmacotherapeutics for advanced practice nurse prescribers (5th ed.). Philadelphia, PA