

CASE STUDY

Anemia, which is also called reduced iron blood, is a dangerous disease that occurs because of the lack of oxygen in the blood or the blood does not carry enough oxygen to some parts of the body. There are several types of anemia that have different causes depending on the cause of the disease. The abnormality of the red blood cells results in insufficient oxygen in the hemoglobin component delivered to the different parts of the body (Garrison, 2009). Insufficient oxygen in some of the vital organs in the body such as the heart can bring fatal complications like a heart attack. The following research paper is going to analyze circumstances and preliminary workup done on Mrs. A, develop a theory, and discuss the type of anemia she has.

RATIONALE

According to workup done by the physicians at the emergency clinic and the other circumstances that Mrs. A has had, it is clear that she has iron deficiency anemia that is caused by the insufficient amount of iron in the body. Iron is used in the production of hemoglobin in the red blood cells whose primary function is carrying oxygen to the body organs. As a result, iron deficiency anemia can lead to tiredness and shortness of breath, which is evidenced by Mrs. A, who experiences such symptoms together with low energy levels (Meselson, 2013). This is due to the lack of oxygen that is necessary for the generation of energy in the body cells. The reason that she got lightheaded during her golf session is the fact that there is a significant loss incurred during the golfing activity that might be difficult because of the absence of balance between the iron absorption with deficiency. Mrs. A was not getting enough oxygen at the high altitude due to the low level

of hemoglobin in her body, and that is why she felt lightheaded and was taken to the hospital.

The values that were evaluated in the laboratory are below the average range. The hemoglobin, the hematocrit, and the red blood cell count are all below the expected normal range that indicates that there are not enough red blood cells in the blood generated by iron. Iron in the body is obtained from the nutrients in the food that people eat and also in the old red blood cells since they only live for three months in the body. The body temperature of 98 degrees F was standard. However, the lack of oxygen in the blood is the reason Mrs. A had an elevated heart and respiratory rate because her body was struggling to get enough air to compensate the deficiency or meet the demands of her body to function properly (Meselson, 2013). The microcytes, which are smaller than normal red blood cells in the blood and the hypochromic that are the red blood cells with a central pallor with a diameter that is 50% greater than normal, indicate an abnormality in those cells (Eichner, 2010). This, therefore, leads to anemia due to the iron deficiency in the body.

This is determined by the cytometric classification of anemia that can be followed by a bone marrow biopsy in the erythrokinetic classification that directly monitors any acceleration of red blood cell destruction. Finally, the physicians should determine the specific etiology of the disease in the biochemical classification that aids in the identification of an abnormal immune system, functioning enzyme (pyruvate kinase), and a destroyed cofactor, which is necessary for the production of iron (Garrison, 2009). Taking 1000mg of aspirin each 3 hours is a high dose that together with the very long time in which she has taken the drug, namely 6 days, has resulted into significant bleeding in her digestive system. According to the research, taking several aspirins in a single day can lead to the loss of 100 to 110 mg of

iron in a half cup of blood due to bleeding (Eichner, 2010). The long-term use of this drug is the reason why Mrs. A has developed anemia.

CONCLUSION

The use of aspirin for a very long time by Mrs. A is the reason that she has obtained anemia. This is because of the bleeding of her digestive tract that has occurred for an extensive period causing iron insufficiency in the body and, thus, anemia. The abnormality of the red blood cells and the small amount of hemoglobin, hematocrit, and the red blood cell count indicate iron deficiency anemia. All other symptoms that Mrs. A has shown relate to this type of anemia. The approach to treat the patient with high iron intake will require a long time in ensuring she feels better.