

Pathophysiological changes resulted by hypertension

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**ASSIGN
BUSTER**

The paper " Pathophysiological Changes Resulted in Hypertension" is a great example of an assignment on health sciences and medicine.

The problem with the patient seems to be hypertension. Hypertension takes place when the heart is overworked thus increasing the blood pressure in the aortic arch. This condition can cause the heart muscles to enlarge due to increasing work. The condition has caused the heart muscles to stiffen up or weaken thus lowering their performance. Once the heart cannot pump enough blood, some fluids flow back into the lungs thus leading to shortness of breath. Moreover, with the low blood supply in the body, the professor tends to get tired easily. Tiredness is attributed to the low supply of oxygen in cells.

What pathophysiological changes are happening in his eyes and heart?

Hypertension resulted in an increase in blood pressure. The increased pressure altered some blood vessels thus causing them to rupture around the blood network in the nose. The rupture thus resulted in a severe nosebleed. Moreover, the intense pressure in the blood results in hypertensive retinopathy, a condition that the retina is filled with pressure (retinal pressure) leading to damage. A damaged retina may cause blurry vision and in some cases, it may result to complete loss of vision.

According to the doctor, the patient might have developed congestive heart failure. Is it right-sided or left-sided?

Based on the symptoms displayed by the professor (dyspnea, dizziness, fatigue, and body weakness), it indicates the development of left-sided heart failure. Left congestive heart failure results in decreased heart performance and pulmonary congestion (Robert E. Shaddy., 2011). The high pressure in

the aorta caused by the blood pressure causes the left side of the heart to become weak or stiff thus lowering its efficiency.

What medications are likely to have been used? Describe the mechanisms of actions of at least two antihypertensive drugs.

The remedy of this condition is to reduce the workload in the heart. The patient needs to lower the sodium and cholesterol intake through diet.

Moreover, medication includes ACE inhibitors, which reduce blood pressure by widening the blood vessels to allow more blood to flow. Examples of ACE include Enalapril, and Capoten. Beta blockers can also be used to lower the blood pressure and slow down the heart for example metoprolol and carvedilol. These medications depend on the condition of the patient's heart (Heart. org, 2014).