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Programme: BSc (Hons) Health and Social Care Level 5

Module: Introduction to Physiology {BMHP5003}

Assignment Title: Cardiovascular Diseases Presentation

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Date: 29/07/2021

CARDIOVASCULAR DISEASES

Definition: Cardiovascular Disease is a term for conditions affecting the heart or blood vessels (NHS,2018). The four main types are: Coronary Heart Disease (oxygen flow to the heart reduced or blocked), Strokes (part of blood supply to brain is cut off), Peripheral Arterial Disease (narrowed arteries reduce blood flow to limbs), Aortic Disease (heart valve damage) (NHS,2018).

Symptoms: Chest pain, breathlessness, palpitations, fatigue, swollen limbs, dizziness (British Heart Foundation,2019).

Physiology:

During coronary artery disease, the arteries supplying blood to the heart become narrowed or blocked by atheroma rupture (degeneration of the walls of arteries caused by fat build-up) and blood clots. When an artery of the heart is completely blocked, lack of blood flow causes insufficient oxygen and nutrients, causing ischemia (a restriction of blood supply to tissues, caused by a shortage of oxygen) and a subsequent myocardial infarction (caused by a blockage of coronary arteries) (Serda et al., 2013).



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Risk factors:

High Blood Pressure, Smoking, Obesity, Family History Of CVD, Poor Diet, Alcohol Misuse/ Abuse, Ethnic Background, Age And Physical Inactivity (British Heart Foundation,2019).

Case Study:

The patient data shows high risk of developing cardiovascular disease due to several factors such as eating and lifestyle habits (patient consumes mainly fried food high in saturated fat), family history of CVD (father has had a heart attack at 68 and high cholesterol), has high blood pressure (180-900), the BMI is high considering height (BMI is 31.6 on the obese category), smokes 10-19 cigarettes a day, does not exercise and consumes 1-2 units of alcohol a day and over 9 units on weekends.

Recommendations:

To prevent the risk of CVD, the patient should stop or reduce the amount of cigarettes smoked per day (patient could access the NHS Smokefree program), switch to a balanced diet limiting the amount of salt consumed (no more than 6g per day, as salt increases blood pressure). Avoid saturated fat to reduce cholesterol and BMI (her BMI prime is 1.31, between 50.4 and 68.1 kg), being more physically active (with a program such as the NHS 9-week "Couch to 5k" for beginners) and reduce alcohol consumption, not exceeding 14 units per week (NHS,2018).

References

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SPEAKER NOTES

Heart disease includes conditions that narrow or block blood vessels (coronary heart disease). This can lead to a heart attack, angina and some strokes. Heart disease also covers conditions that affect your heart's muscle, valves or cause abnormal rhythms (arrhythmias) (British Heart Foundation, 2019).

The accumulation of fatty plaques in the arteries or atherosclerosis can damage the blood vessels and the heart. Plaque build-up causes a narrowing or blockage of the blood vessels that can lead to a heart attack, chest pain (angina pectoris), or stroke (NHS,2018).

Cardiovascular Diseases are the leading cause of death globally (British Heart Foundation, 2019).

Most of these diseases can be prevented by addressing risk factors, so early detection and treatment is very desirable (British Heart Foundation, 2019).

