Obesity Case Study

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Module: Introduction to Physiology

Module Code: BMHP5003

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July 26, 2021

---- Obesity: A Case Study ----

Introduction

Obesity refers to excessive or abnormal levels of fat in the body that creates risks to an individual's health. An individual with a body mass index (BMI) that exceeds 30 is classified as obese (NHS, 2019). It causes various systemic difficulties, many of which may cause organ or tissue impairments (Mafort, et al., 2016). Sedentary lifestyle combined with poor eating habits and a lack of physical exercise are leading causes of obesity.

Purpose

This examines the results of an interview conducted Patient A to determine the extent to which her behaviours/ lifestyle is associated with her health outcomes, particularly as it relates to obesity. It covers the effects obesity can have on different organ systems, before recommending suitable health interventions for Patient A.

Physiological Impact

- **Increased risk of cardiovascular diseases such as coronary heart disease, heart failure** and stroke (Oesch, et al., 2017) (Carbone, et al., 2019).

- **Reduced lung function** (Peters, et al., 2019)
- **Higher BMI increases the risk of developing asthma** (Mafort, et al., 2016).

- **Increased fracture risk due to a decline in muscle mass and bone density**
- **Obesity is associated with increased frequency of osteoarthritis** (Segula, 2014)

- **Gastroesophageal reflux, where acids in the stomach leaks into the esophagus** (Cafasso, 2020)

Patient Presentation

Health Profile

- Age:45
- Sex: Female
- Height: 160 cm
- Weight: 80kg
- Blood Pressure: 140/90

Lifestyle Risk Factors

- Sedentary lifestyle; little to no physical exercise
- Diet consists primarily of fast food (burgers, chips, etc.) and sugary drinks

Discussion

Multiple studies have found that lack of physical exercise and a poor diet (particularly one that consists primarily of fast food) are major contributors to individuals' weight, specifically whether or not they become obese (Xiao & Graf, 2019). Based on Patient A's weight and height, her BMI is 31.2. This puts her in the obese category. This is expected as she mentioned the fact she eats mainly fast food, and does not exercise. Obesity is a major risk factor for high blood pressure, thus explaining why she is currently in Hypertension Stage 1 (Ridgmount Practice, 2021). High blood pressure is the largest risk factor for stroke. Also, the fact that she is a smoker who regularly drinks alcohol, and her father had suffered a stroke in the past significantly increases her risk of stroke (Stroke Association, 2021).

Interventions

Obesity can negatively affect the functioning of a wide range of organs, and is therefore to be treated as a serious health issue. To tackle this problem, it is recommended that Patient A takes two separate but equally important courses of action: adjust her diet and start exercising.

The leading and most effective obesity treatment is dieting, supplemented by a structured physical exercise plan. As such, Patient A should reduce and eventually eliminate the amount of fast food and sugary drinks she consumes, while incorporating more vegetables and water. Such dieting based on calorie restriction where caloric intake is limited to between 800 and 1500 calories per day tend to work well. Fock & Khoo (2013) recommend that the amount of calories consumed be increased gradually after the desired weight changed is achieved so that there is a balance between calories expended and that consumed.

Additionally, regular physical exercise will heighten the efficiency and effectiveness of dieting, and tends to sustain the weight-loss achieved through dieting (Fock & Khoo, 2013).Patient A should therefore, make physical exercise part of her everyday life. This should, however be done after consulting with a physician so that she is able to set safe, specific, realistic and sustainable fitness and weight-loss goals.

Conclusion

Obesity is a prevalent problem in the United Kingdon that can have harmful effects on different organ systems; cardiovascular, pulmonary, skeletal, and digestive among others. For the most part, it is a lifestyle condition whose impact on our daily lives can be reduced or eliminated by implementing the necessary behavioural and lifestyle changes.

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