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Definition of obesity

Obesity refers to excessive fat in the body of a human being. It is a condition that increases risks of developing other medical conditions like diabetes and high blood pressure. Obesity is caused by certain genetic factors, eating habits of an individual and the environment of an individual. One of the biggest causes is related to dietary issues. Obesity is caused when the calorie intake of an individual supersedes the physical activities that helps to break down the excess calories.

Physiology of obesity

The patient has a BMI of 31.6 which surpasses the normal BMI of 25 for a healthy weight (NIH, 2021). BMI shows that she has got a lot of body fat compared to the height. Patient A takes red meat on a daily basis, takes chips which are some of the causes of the increased body fat content in the body.

Obesity leads to excess fat deposits in the blood vessels of an individual. When excess fat is stored in the walls of the blood vessels, the bloods constrict and become narrow which increases the blood pressure required by the heart to pump blood to other parts of the body. The family history of obesity introduces the concept of cholesterol in the body. Increased cholesterol in the body leads to blockage and hardening of the arteries and blood vessels and therefore the heart strains to pump blood throughout the body. This creates a rise in blood pressure hence the pressure reading being experienced by patient A. The blood that is carried to the heart reduces leading to heart disease symbolized by angina.

Obesity causes insulin resistance which causes type 2 diabetes. The body makes enough insulin but due to the resistance of the body cells caused by fat inflammation, the body becomes insulin resistant leading to diabetes.

In a nutshell, the physiology of obesity is experienced by a BMI of above 30(NIH,2021). This is what leads to different organ malfunctions in the body of a human being. For example, increased cholesterol leads to high blood pressure which increases the likelihood of a heart disease, stroke and heart attack. All these lead to death.

Causes and risk factors

Case Study Findings

The study revealed that patient name is A, born 1/1/1973, she smokes 10-19 cigarette a day and has high blood pressure with no heart attack or stroke. The patient's father has high blood pressure at the age of 68. Her sister has high cholesterol. Patient BP is 180/90, height is 165 weight 86kg. She does not exercise at all, she eats meat, regular chips and fries daily. She drinks alcohol between 3 and 6 units a day. A.

Risk Factors for Obesity

Genetics (Family History & Inheritance)

In most cases, obesity runs in family bloodlines. The genetics can dictate the level of body fat across generations, determine how the body breaks down calories and regulates the appetite of an individual. An example is in a bloodline where appetite is not effectively managed, the intake for food becomes high and with minimal exercise, obesity sets.

Economic and Social Issues

Availability of social amenities is very important for individuals to have safe areas to exercise. Economics also define the purchasing power of people. Those with poor purchasing power are exposed to buying foods that are cheap and have high fat content. The rich have a choice over whatever they eat. Dietary habits may be linked to environment and economics. One social cause is that when you live with an obese person, you adopt the same eating habits which exposes you to obesity. All these expose an individual to the risk of suffering from obesity.

Causes of Obesity

The main cause of obesity is poor dietary habits caused by unhealthy eating of high fat and calorie foods. The excessive fat is stored in the body, hence leading to a high body mass index. Obesity is caused by certain genetic factors. The genetic mutations and syndrome-related genetic disorders can lead to obesity in a bloodline. For example, according to the results of the questionnaire, patient A's sister has high cholesterol levels in the blood. High cholesterol, which is genetically caused, is a risk factor that promotes obesity (Omer, 2020).

Lifestyle Decisions

The eating habit is one of the lifestyle choices. A diet that has a high content of fat with minimal fruits and has high calories of beverages can promote gaining of weight, which increases body mass, causing obesity. This can also support the over 31 BMI. Lack of physical activity is another risk factor for obesity.

Age

Obesity can occur at any age. It is prevalent at older ages. This is because as one ages, there are hormonal changes that cause reduced metabolism and the physical activities reduce as well.

Diseases and Medications

Some diseases are linked to obesity. An example is Prader-Willi syndrome, a disorder that increases the likelihood of developing obesity (Batsis, 2018). Others include Cushing syndrome. Medical conditions like arthritis cause joint pains and therefore limit the ability of an individual to get physical. This increases the likelihood of weight gain.

Interventions

Regular Exercises

This means physically engaging the body through runs and brisk walks. It is recommended that up to 40 minutes of physical activity is health on a daily basis. The physical exercise helps to burn excess calories and transform them to energy, hence reducing the fat content in the body of an individual. For example, Patient A could resort to daily brisk walks and jogging to help reduce the weight. These exercises help to burn excess calories and release the energy since in the course of exercise, a lot of energy is used.

Adopting a healthy eating plan

Whatever is taken determines the excess that is being stored in the body. It is recommended that individuals who are obese should focus on diets that have high nutrients and low on fats and calories. This is advised to prevent accumulation of excess calorie foods. Certain habits should be avoided, like snacking and saturated fats. Alcohol should also be eliminated from the diet. Despite this recommendation, once in a while, it is allowed to take high-calorie foods. Most doctors recommend fresh vegetables and fruits. This should substitute saturated fats and sugars.

Conclusion

Obesity is a life-threatening health condition that has to be checked on for one to live longer. Obesity is mostly caused by individual diets, genetic issues, and even the environment that one lives in. Obesity exposes one to risks like stroke, coronary heart disease, diabetes, cancer, and even gall bladder disease. The risk factors associated with obesity include age, lifestyle choices, genetics, certain diseases, and the socio-economic status of an individual. It can be prevented through regular exercise, dietary changes, and weight monitoring. The only way patient A can evade obesity is through change of lifestyle; that is, behavior. This includes change of diet, stoppage on alcohol consumption, and little exercise would revamp her situation to avoid any complications related to obesity from advancing.

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