



Obesity, Diabetes and Lifestyles

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Introduction

Obesity is a nutritional disorder which has been increasing exponentially. It is defined as a pathology brought about by an excess of accumulated body fat and may affect the person's health. Due to its high growth in the last few years, it has become a public health problem, also known as a chronic disease, which has gained relevance in the past few years. Obese people have a significant higher risk of developing diabetes. According to the Annual Report of the National Diabetes Observatory – 2019 Edition, approximately 90% of the population with diabetes was overweight or obese in 2018, thereby indicating a relation between the Body Mass Index (BMI) and diabetes. The report also mentions that the prevalence of diabetes among obese people whose BMI = 30 is about four times higher than among people with a normal BMI [1]. Diabetes comes about not only by the insufficient production of insulin by the pancreas but also by the body's inadequate response to the insulin which it produces. It's part of a cluster of metabolic diseases where high levels of glucose in the blood are existent for a long period of time. The symptoms of high glucose include pollakiuria, polydipsia and polyphagia. When untreated, diabetes may present various complications, among which is Ketoacidosis, Hyperosmolar Hyperglycemic comma or death. Long term complications may include cardiovascular diseases, strokes, chronic kidney disease, foot ulcers and diabetic retinopathy [2]. The objective of this paper is to consider both obesity and diabetes and analyses their relationship to the current lifestyle.

Prevalence of Obesity in Portugal

In the Epidemiological Report of "Instituto Nacional de Saúde Doutor Ricardo Jorge", Sara Cerdas [3] states that obesity is a European priority. According to the author, one in every six adults in the European Union is obese and that obesity continues to grow

in the majority of the countries. Cerdas also adds that according to the Treaties on the Functioning of the European Union, nutritional environments may be improved, specially through legal actions [3]. The "Instituto Nacional de Saúde Doutor Ricardo Jorge" has carried out a study on the population residing in Portugal in 2015 – 1st National Health Survey with a Physical Exam (NHSPE 2015), with a view to describing the prevalence of the state of health of the Portuguese population, assessing a variety of data, including overweight and obesity through antropometric measurements which were crosschecked with variables such as gender, age, region, educational level and the working status. The results obtained from the study showed that 38,9% of the adult population between the ages of 25 to 74 is overweight and 28,7% was obese. Overweight was prevalent among members of the male gender (45,4%), while obesity was greater among the female gender (32,1%). The educational level proved to be an important socio-economic factor for the prevalence of obesity, as the individuals who had the lowest school level were the ones who were most affected by this condition (39,4%), yet those with higher education were the ones who were most affected by overweight (42,8%). People who had no salaried jobs (students, housewives and pensioners) were the ones who showed the greatest prevalence for overweight, while obesity was prevalent among people with salaried jobs, despite the differences not being statistically significant [4]. The authors state in the published study that the Portuguese between the ages of 45 and 54 were the most affected by overweight (43,7%) and those between the ages of 65 and 74 were most affected by obesity (41,8%). The prevalence of overweight varied between 35,1% in the Lisbon and Tagus Valley region and 42,1% in the North of Portugal, whereas the prevalence for obesity varied between 23,2% in the region of the Algarve and 32,5% in the Azores islands [4].

Obesity and Lifestyles

Diabetes is primarily a consequence of the lifestyle we currently lead, characterized by an increase in obesity, sedentarism, an excessively caloric diet, and an aging population. Prevention and treatment consist in maintaining an adequate diet, regular physical activity and maintaining a normal weight, which is related to adopting a healthy lifestyle. However, weight loss remains a problematic issue with regard to diabetes, namely the person's inability to understand and incorporate significant changes to their lifestyle. Stress is an influential factor in glycemic levels and, consequently, it is important to learn how to manage them so as to maintain them within reference levels. There are techniques which may help face stressful situations, such as breathing exercises, relaxation techniques, doing physical exercise and taking part in leisure and social activities. The current pandemic situation caused by COVID-19 has drawn the attention to obesity, once again. There are studies which prove the relationship between obesity and the increase of mortality or worsening of the disease through Sars-Cov 2 [5-7]. In fact, the pandemic carries a greater risk for people with comorbidities such as obesity. On the other hand, it was also evident that the lockdowns brought about by the current pandemic were responsible for a decrease in the practice of physical exercise and changes in the eating habits of the population in general, resulting in an increase in the consumption of fizzy drinks, fried foods, fast food, processed goods as well as the rise in number of meals and quantity consumed in each meal, which led to an increase in weight [8]. Thus, we can see that in 2020, the whole world was forced to face two worrying pandemics which, despite not being related, can provoke terrible results among the population when they overlap.

Conclusion

There are several factors which contribute to the development of obesity in the long term, the most impactful being behavioral patterns such as those related to our lifestyle. In the last few years, there has been a rise in sedentarism, evident in the long periods

spent watching TV or on other technological devices (mobile phones, computers, etc.), online lessons and homeworking, which contribute to obesity and the risk of diabetes. Smoking and the lack of physical exercise and a healthy diet also contributed to the increase of obesity and, consequently, poorly controlled diabetes. There are lifestyle changing programs centered on altering living habits, which include procedures to face the difficulties of weight loss. In fact, significant changes in lifestyle seem to be associated with a greater weight loss and greater control of diabetes. Being this paper a mere critical analysis, further studies ought to be carried out with the aim of assessing the relationship between obesity, diabetes and lifestyles.

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