

Extended Abstract

Compliance of Smokers with Diet and Exercise Suggestions and Changes in Weight and Body Mass Indices

Introduction

One of the important problems faced by people who quit smoking in the medium and long term is weight gain. The complex relationship between obesity and smoking has long been of interest. Contrary to the argument that smoking has a positive effect on obesity, it has been shown that the probability of obesity increases in people who smoke at a high level. On the other hand, weight gain in people who quit smoking is a very common phenomenon. Although most people who quit smoking generally gain less than 4.5 kg in this period, some studies have reported an increase of more than 11 kg in 13% of those who quit smoking. Some undesirable consequences of weight gain in people who quit smoking are known. First, the risk of glucose metabolism diseases, especially type 2 diabetes mellitus, increases with weight gain. However, perhaps the most important undesirable effect is that addicts, especially women, start smoking again to stop weight gain. In our country, there are not much data on the changes in body mass index (BMI) of people who quit smoking in the long term, such as one year. The aim of this study is to monitor changes in BMI over a one-year period in people who quit smoking and to evaluate their compliance with dietary and exercise recommendations during smoking cessation counseling.

Methods

Our study was a retrospective, control group case study. The study population consisted of 2260 people who applied to Ondokuz Mayıs University Faculty of Medicine Family Medicine Smoking Cessation Clinic between June 1, 2012 and June 1, 2013. Of these, 460 people who met the study criteria were selected by simple randomization and accepted as the study group.

Cigarette addicts who attended our clinic were included in the standard three-month follow-up and treatment program. Interviews ranging from 15 to 20 minutes were conducted with each patient at least four times during the first month (up to two smoking cessation days) and every 15 days over the following months. Each interview was structured specially. During the second and third sessions, patients were given nutrition and weight control recommendations. Sociodemographics, smoking characteristics, and BMI data were included in the study. Participants aged 18 to 65 years were included in the study and called to the outpatient clinic an average of one year after their application date (between June 1 and July 1, 2015). On average, 10 minutes of interviews, which were always structured by the same researcher, were conducted and recorded with each participant. After the participants received an ex-

planation of the purpose of the study, verbal consent for participation was obtained. Individuals were asked about their current smoking status and weight.

Results

According to the first measurements, women who quit smoking gained an average of 3.77 ± 2.6 kg in one year, while their BMI increased by 1.33 ± 1.9 kg/m². The weight ($F=2.857$, $p<0.01$) and BMI ($F=3.014$, $p=0.002$) of women who quit smoking and started again increased after one year. According to the first measurements, men who quit smoking gained 5.03 ± 3.2 kg in one year, while their BMI increased by 1.52 ± 1.7 kg/m². The weight ($F=6.114$, $p<0.01$) and BMI ($F=3.014$, $p<0.001$) of the men who quit smoking and started again after one year.

Discussion

The smoking cessation rate was found to be 21.7% in the first year among patients who applied to our outpatient clinic. In our study, almost half of our patients (46.9%) stated that they gained weight during their treatment, regardless of their smoking cessation status. In our study, when we examined the weight changes of smokers by gender, we found that men gained significantly more weight than women did. In the long term, women gained 3.77 ± 2.6 kg, whereas men gained 5.03 ± 3.2 kg. As a result of this study, we determined that the weight and BMI of the individuals who quit smoking completely or for a while increased in the long term. When the factors affecting weight change in our study were analyzed, no significant relationship was found between FNDDT, pack/year, age, preferred treatment method, or weight gain during the application. Additional studies are needed to investigate the factors that cause weight gain after smoking cessation.