Abstract

Background: Prostate cancer is the second most common cancer in men worldwide. Differences in prostate cancer incidence suggest a significant role of environmental factors in the aetiology: obesity, central adiposity and some dietary factors have been suggested as risk factors. This pilot study aimed to analyse the pattern of nutritional status, body fat, and the usual dietary intake among men diagnosed with prostate cancer, consecutively referred to the Radiotherapy Department of the University Hospital Santa Maria. Patients & methods: Throughout 2006, 87 men with prostate cancer were included. Evaluations: weight & height to calculate body mass index (BMI), waist circumference, percentage body fat with bipolar hand–held bioimpedance analysis (BF-306®), Food Frequency Questionnaire validated for the Portuguese population to assess the usual dietary intake. Frequency analysis and Mann-Whitney U test were used to evaluate prevalence and associations. Results: Mean age was 69 ± 7 (46-85) years; 74(84.1%) patients were in stage II, 5 (5.7%) in stage I & 9 (10.2%) in stage III; 39(45%) patients had a Gleason score 7. Regarding nutritional status, 78 (89%) patients were overweight/obese, 84 (97%) had a body fat above the maximum limit (> 25%) and 43 (49%) had a waist circumference > 102 cm (prevalence analysis: p < 0.05). Univariate analysis did not show any association between Gleason Score, BMI, %body fat and waist circumference; by multivariate analysis there was an association between higher BMI, %body fat and aggressive Gleason scores (p < 0.002), such variables worsened with age. Food frequency analysis showed a low consumption of n3 fatty acids sources as well as vegetables and whole grain cereals and a correlation between low yogurt and vegetables intake with more aggressive Gleason scores was found (p < 0.05). Conclusion: Our findings show a high prevalence of obesity, excessive body and abdominal fat and diets deficient in protective nutrients. Further investigation is warranted as cancer rates in Portugal continue to increase!

Keywords

Prostate cancer, Diet, Obesity, Body fat, Waist circumference.