BODY FAT DISTRIBUTION AND LIPID PROFILE CHANGES AFTER WEIGHT LOSS – A CASE REPORT

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INTRODUCTION

The aim of this study was to discover the relationship between body fat distribution and lipid profile changes after weight loss. In this case report following subject's parameters were determined before and after weight loss of 12 kg: body mass index (BMI), body weight (BW), total, trunk and legs fat mass (FM) with dual energy xray absorptiometry (DXA) and their ratios legs/trunk and legs/total FM indexes of abdominal fat distribution. Lipid profile was also determined before and after weight loss.

MATERIALS AND METHODS

Total cholesterol (TC), triglycerides (TG), HDL-C, LDL-C, LDL/HDL-C, TC/HDL-C. BW of 63 kg and BMI value of 28.74 kg/m2 before the weight loss lowered to 51kg and 22.55 kg/m2. The percentage difference between the change in BMI and BW was statistically not significant ($p=0.782$). Legs/total FM index value increase from 0.36 to 0.39 was significant ($p<0.025$). Legs/trunk FM index value increase from 0.67 to 0.76 was also significant ($p<0.043$). Legs, total and trunk FM had not significant reduction ($p>0.05$), but the percentage difference between their changes, during weight reduction was statistically significant ($p=0.0001$)

DISCUSSION

TC, HDL-C, LDL-C, LDL/HDL-C, TC/HDL-C changes were also significant. The percentage difference between the change in BMI and BW to normal levels was statistically not significant, but the percentage difference between the changes in DXA indexes of visceral, abdominal obesity was significant and it was associated with significant reduction of atherogenic lipid profile indicating reduced atherogenic risk.

Results CONCLUSION

These results confirmed that DXA measurements of abdominal fat distribution are very useful in studies related to obesityassociated disease risk.