Introduction: Recent studies on glycaemic index (GI) diets have controversial results regarding efficiency of this diet in weight loss and in reducing abdominal obesity, and particularly in rapid weight loss. Also, trials comparing low- versus high-fat diets in people with abdominal obesity have shown inconsistent results, possibly explained by the different metabolic status of the included subjects.

Methods: We studied 54 subjects without diabetes mellitus (DM) or cardiovascular (CV) disease which followed a 6 weeks diet plan based on a combination of low GI foods (GI less than 55) and low fat foods (maximum of 20% of the daily energy intake from fat). We studied the body mass index (BMI) as a measure for weight loss and waist circumference and visceral fat as measurements for abdominal obesity at baseline and after 6 weeks. We also studied the correlation between waist circumference and visceral fat at baseline and after 6 weeks. Body composition was assessed by dual-frequency biometric impedance with Tanita BC 587 Monitor.

Results: BMI significantly decreased from 33.52 ± 7.31 kg/m2 at baseline to 30.93 ± 6.81 kg/m2 at the end of our study (p<0.001). The waist circumference and visceral fat percentage were 114.02 ± 17.48 cm, respectively 11.82 ± 6.90 % at baseline and 106.80 ± 15.83 cm, respectively 10.29 ± 6.23 % after 6 weeks, both with a statistically significant decrease (p<0.001). Our study revealed a strong positive correlation between waist circumference and visceral fat at baseline (r=0.71, p<0.001). This correlation maintained at the end of the study (r=0.73; p<0.001).

Conclusion: In our study, combined low fat and low GI diet results in significant and rapid weight loss and reduction in abdominal obesity in subjects without DM or CV disease, subsequently preventing these two serious pathological conditions, with further impact on life quality and expectancy.