

TITLE: Orlistat 60 mg in conjunction with diet provides significant reduction in visceral adipose tissue

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ABSTRACT:

Aims To assess the potential efficacy of orlistat 60 mg in the reduction of body weight, waist circumference and visceral adipose tissue (VAT) in overweight and obese individuals.

Methods Overweight and obese individuals (BMI 25-35.0 kg/m²) with a waist circumference >88 cm (women) or >102 cm (men) participated in a 12-week weight loss study utilizing orlistat 60 mg tid along with a hypocaloric (-500 kcal), low fat diet. At baseline, subjects received a single dietary counseling session on the use of orlistat 60 mg in a weight loss program, and an abdominal MRI scan was performed to measure VAT. Body weight and waist circumference were measured at weeks 4, 8, and 12, with a repeat abdominal MRI scan at week 12.

Results 26 subjects received treatment in the study (7 female/ 19 male), and 24 subjects completed the 12 week study.

Table 1. Mean Change in Weight, Waist Circumference and VAT from Baseline to Week 12

Treatment Group	n	Baseline Mean ± SD	Mean Change (% Change) Baseline to Week 12	p-value
Weight, kg	24	94.49 ± 12.75	-5.24 (-5.6%)	<0.0001
Waist Circumference, cm	24	105.3 ± 8.12	-4.54 (-4.3%)	<0.0001
VAT, L	20	5.77 (CV 44.1%)	-0.60 (-10.6%)	0.0225

Baseline weight, waist circumference and VAT are presented in Table 1. After the 12 week treatment with orlistat 60 mg there was a significant reduction in body weight, waist circumference and VAT (Table 1). The change in visceral fat was correlated with the change in weight ($r^2=0.68$ $p<0.001$) but not waist circumference ($r^2 = 0.22$, $p = 0.35$).

For European interest, post-hoc analysis for BMI ≥ 28 kg/m² also found reductions in body weight and waist circumference (N=22, P<0.0001 for both) and VAT (N=19, P=0.0336).

Conclusion These data demonstrate that a 12 week weight loss program with orlistat 60 mg in combination with a low-fat diet, significantly reduced body weight, waist circumference and VAT. The change in VAT was associated with the change in body weight, but not waist circumference. The use of orlistat 60 mg in conjunction with a low fat diet can be an effective treatment option for reducing abdominal obesity, one component of the metabolic syndrome.