



# Successful Weight Maintenance and Body Composition: a 6 to 30 Months Follow-up

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**BACKGROUND:** Maintenance of weight loss is a core problem in the treatment of obesity. Structured Weight control programs can improve maintenance and body composition in obesity. Successful treatment can differ individually and has important impact on health care costs and patient quality of life [Poirier P et al. (2006), *Circulation* 113:1-21].

**STUDY AIM:** The aim of the study was to assess long-term effects of body weight and body composition during a standardized obesity program emphasising on fat loss.

**SUBJECTS AND METHODS:** Obese patients (n=508) were recruited in a primary care setting and followed a standardized obesity program using meal replacements (AENGUS®, Austria). Body composition was evaluated by both conventional and vector bioelectrical impedance analysis (RXc Graph) by AKERN BIA 101® Bodycomp Vs. 7.0.. Patients having completed up to 6, 12, 18, 24, 30, or more than 30 months of the treatment program (groups I-VI) were analysed, the results were compared to their baseline data.

**RESULTS:** We observed significant weight loss in all groups (% mean±SD body weight compared to baseline: I: 88.5±5.5, II: 88.5±5.7, III: 88.9±7.6, IV: 91.2±6.6, V: 88.9±8.0, VI: 92.9±8.5; p<0.001). The assessed program showed a marked reduction in body fat (% body fat compared to baseline I: 76.6±12.3, II: 77.1±11.6, III: 79.6±14.6, IV: 83.8±11.7, V: 79.2±16.2, VI: 87.3±18.5; p<0.001). The Body Cell Mass (BCM) was in group I 107.0±9.7%, in group II 108.1±9.5%, in group III 106.6±8.2 %, in group IV 105.1±6.7 % und in group V 107.1±10.2% compared to baseline (p<0,001), after 30 months there was a significant higher BCM in women (n=77; p=0,04), but not in men (n=16; p=0,54).

**CONCLUSIONS:** These results confirm the importance of accurate monitoring of body composition in obesity programs and the impact on individual interpretation of successful long-term treatment.

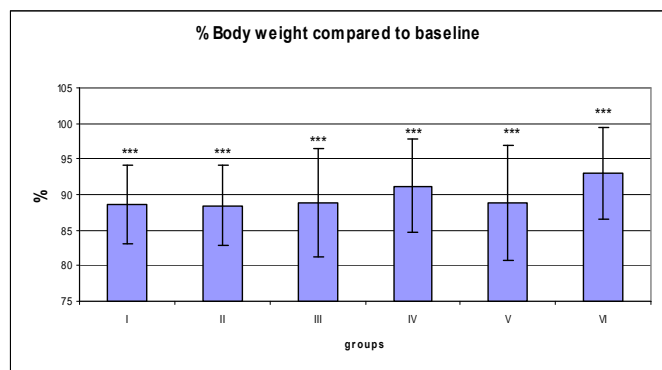


Figure 1: % Body weight of patients (group I-IV) compared to baseline. \*\*\* p<0.001

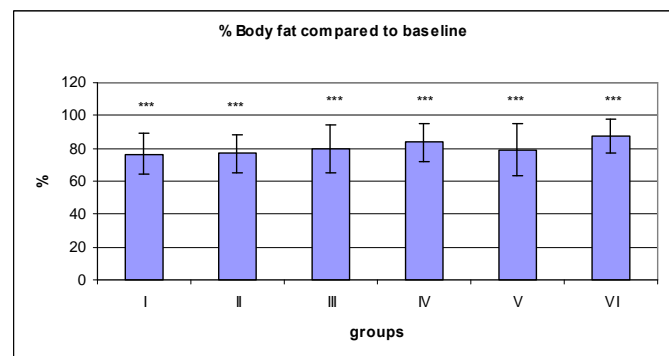


Figure 2: % Body fat of patients (group I-VI) compared to baseline. \*\*\* p<0.001

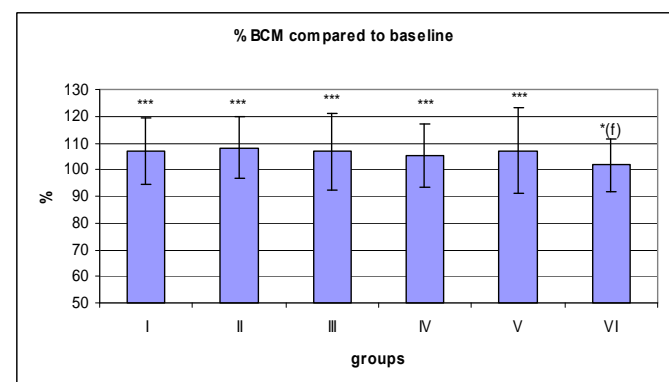


Figure 3: % Body Cell Mass (BCM) of the patients (group I-VI) compared to baseline considering changes in body weight. \*\*\* p<0.001, \*(f) p<0.05 only in women.