

Weight loss with continuous telemedical monitoring of weight and physical activity

C. Luley, A. Blaik, S. Aronica, J. Dierkes, J. Heinz, S. Westphal
Institute of Clinical Chemistry at the University Hospital of the Otto-von-Guericke University, Magdeburg

Question

Can weight reduction be improved through telemedical monitoring of weight and physical activity?

Method

In an intervention study, 20 obese families received scales and activity sensors from the company Aipermon in Munich. The results were communicated to the families in a weekly letter, including comments and motivation. Further randomized intervention in sub-groups were either calorie restriction or the "Magdeburg Dual Diet" (caloric restriction plus "Glyx" diet). 51 families with the same nutritional interventions were used as controls.

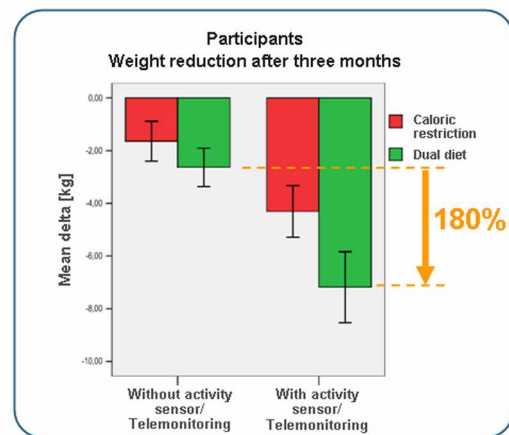
Results

The table shows the number of cases.

	WITHOUT telemedicine	WITH telemedicine
Dual Diet	26	10
Calorie restriction	28	12

Figure:

Both with and without telemedicine, the entire study showed the tendency of better weight loss under the Dual Diet.



Conclusions:

1. Telemedicine markedly increases weight reduction among adults.
2. The greatest weight loss is achieved by the combination of telemedicine with the Magdeburg Dual Diet.

Based upon the study "Weight loss with continuous telemedical monitoring of weight and physical activity", long term treatment was carried out

Question:

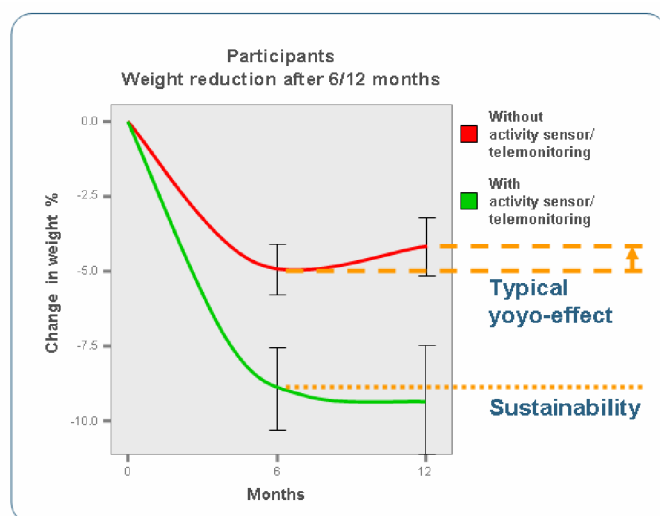
What is the weight trend among overweight patients over a period of 12 months using the telemonitoring of activity and weight ?

Method

The participants from the study "weight loss with continuous telemedical monitoring of weight and physical activity" were studied over a period of 12 months regarding weight.

Result:

The group under telemonitoring showed continuous weight loss for 6 months. Thereafter, their weights remained constant. The control group showed the familiar trend of weight gain.



Effects of the ABC program in overweight on weight, metabolism and vascular function

Sabine Westphal¹, A. Blaik¹, N. Lins², C. Luley¹

¹Institut für Klinische Chemie und Pathobiochemie im Klinikum der Otto-von-Guericke-Universität Magdeburg, ² practice for nutrition, Magdeburg

Question

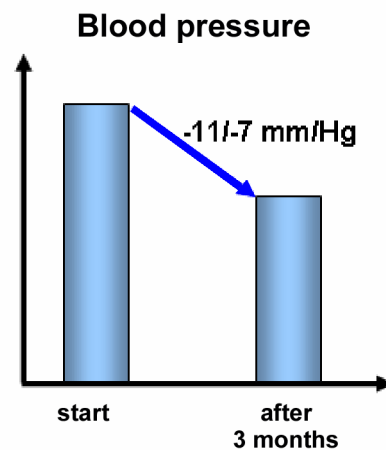
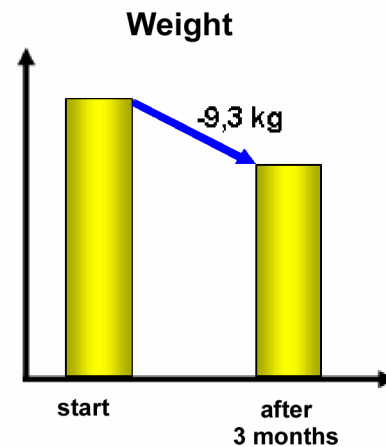
In another study, the effectiveness of the ABC program (www.abc-diaet.com) was studied in obese men and women.

Method

28 obese women (82%) and men (18%) who considered themselves healthy took part in the 3-month study. The average age was 52 years. A set of devices from the company Aipermon (Munich) was used for telemonitoring weight and physical activity.

Results

The initial BMI of the entire group was 34.5 kilograms / m². After 3 months, the participants had lost 9.3 kg. This was associated with numerous improvements in obesity-related disorders. Blood pressure fell by 11 / 7 mm / Hg (p <0.002). Uric acid, ALAT and ASAT decreased by 8%, 10% and 9% respectively (all p <0.03). Most pronounced was the decrease in gGT (23%) and insulin (24%, both p <0.000). The endothelial function of large arteries (measured as flow-mediated vasodilation of the forearm) improved by 0.3 percentage points (p = 0,008). The proportion of participants with blood pressure > 130/80 mm/Hg was 57% at baseline and 36% after 3 months.



Weight	-9,3 kg	p<0,000
Blood Pressure	-11/-7mm/Hg	p<0,002
Participants with blood pressure > 130/80 mm / Hg	before: 57%, after: 36%	
Insulin	-24%	p<0,000

Conclusions

1. The ABC program has proven to be very effective regarding weight, metabolism, vascular function and blood pressure in clinically normal overweight patients.
2. The ABC program not only resulted in the hoped-for weight loss, but also in a related reduction in the prevalence of obesity-related disorders.

Contact

Prof. Dr. med. Dipl. chem. Claus Luley
 Institut für Klinische Chemie Uniklinik Magdeburg
 Leipziger Str. 44
 D - 39120 Magdeburg
 T: +49 (0) 391-67139-00
 F: +49 (0) 391-67139-02
 E-Mail: claus.luley@med.ovgu.de
www.abc-diaet.com

Aipermon GmbH & Co. KG

Zamdorfer Str. 100
 D – 81677 Munich
 T: +49 (0) 89-97890-0
 F: +49 (0) 89-97890-199
 E-Mail: info@aipermon.com
www.aipermon.com