

# Mediterranean diet and SPA treatment: a healthy association?

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**Background:** In 2014, around 1.9 billion adults over the age of 18 were overweight. In the United States and Europe obesity has become a primary public health problem. Many people who go often to SPAs to perform mud therapy are overweight. The possibility of a dietetic evaluation to follow a dietetic program could be an occasion for both slimming and food education.

**Objectives:** We have look for a possible cooperation between Mediterranean diet and mudpack treatment in losing weight.

**Methods.**We enrolled 275 people in this study, from January 2014 to September 2016. 193 people of these were female (70%) and the other 82 was male (30%). Most diet-requiring patients were over 50 years of age.The 38% of the patients were from Russian countries (ex USSR), 29% were Italians, 19% were French and 14% from the rest of the world.

Spa therapy consisted in 1 or 2 week program performed at the Borile Group Thermal Spa in Abano (Italy). For 200 patients the program included 6, 10 or 14 daily mud-pack applications, thermal bath, and some massage; 75 patients didn't undergo mud-pack applications.

The mud-pack was applied on the whole body for 15 minutes at the initial temperature of 45°C. After this application there was a thermal bath in mineral water at the temperature of 36°C for 10 minutes with a light hydromassage.All the patients in the period of the study were on a 1000-1500 kcal diet, according to their basal metabolism. The main outcome measures are weight, BIA (Body Impedence Assessment), waist-hip ratio, abdominal circumference

**RESULTS:** Anthropometric measurements showed that the 42% of the patients was overweight and the 38% was obese with the presence of severe obese (BMI over 40).

If we consider the fat percentage measured with BIA together with the BMI and WHR, the 83% of our patients was obese.

We have considered whether mudpack could have some effect on weight loss, and / or on fat mass reduction. We have considered the two groups: 201 patients

who underwent mudpack together with diet and 74 patients who underwent only diet. .

Overweight and obese subjects, if they have undergone diet and mudpack therapy, seem to have lost more weight and achieved a greater reduction in the fat mass than those who have done only diet.(tested, with a T-Student test).

Most overweight and obese patients have lost weight and fat, and this seems to be due not only to low caloric regimen, but also to the mudpack therapy itself. It will be very important to carry out studies with larger statistical relevance in the future.