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Medical Research Report

STUDY: MMA #001 · L 112 BIOPOLYMER · FAT BINDER

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TITLE:

L112 BIOPOLYMER - FATBINDER AS A WEIGHT

REDUCER IN PATIENTS WITH MODERATE OBESITY.

A STUDY PERFORMED AT ARS MEDICINA HELSINKI. AUGUST · OCTOBER. 1994

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ARS Medicina (Helsinki) Report 1994

The Helsinki Report

A double-blind study researched the weight-reducing efficacy of polyglucosamine (L112) over a two to four week period. The study was performed at the ARS Medicina in Helsinki, Finland from mid-August to October of 1994.

The primary objective of this study was to measure the weight reduction efficacy of the polyglucosamine (L112), but, secondarily, the researchers also wanted to look at the effect on elevated blood pressure (hypertension).

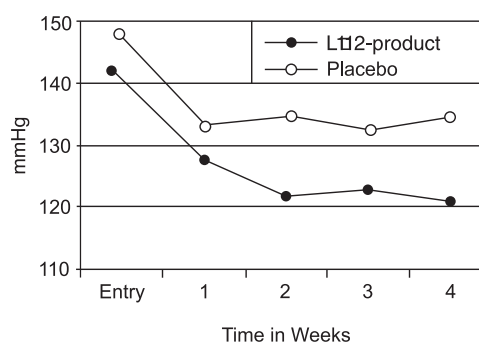
Each patient took only eight 240 milligram capsules compared to a placebo. A special diet for 14 days was presented to the two groups of patients. A dietitian from the Central University Hospital of Helsinki developed the diet. It consisted of a typical western composition: 40% of the calories as fat, 40% of the calories as carbohydrates, and 20% as protein. The amount of calories, however, was restricted in both groups to 1,000 daily. Any type of fiber was purposely left out of the diet so as to measure the true effect of the polyglucosamine (L112).

The initial length of the study was designed for 14 days, but some of the patients decided to continue and were monitored for a longer period of time. The doctors controlling the study performed weekly controlled visits. At each visit, the patients were monitored for strict dietary control and to ensure they had been taking the polyglucosamine (L112) capsules as prescribed. The weight and blood pressure parameters were measured at each visit. Each patient was to take 4 capsules of polyglucosamine (L112) twice daily, 4 before lunch and 4 before dinner each day.

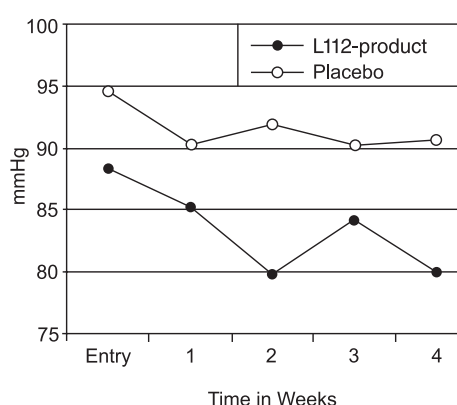
Each patient was cleared by medical examination in order to participate in this study. Thirty patients started the study, but six withdrew and four others were found to not be sufficiently overweight to participate in this study. Of the remaining 20 patients, all but two fulfilled the four-week study period, eight were placed in the active group, and ten in the placebo group.

Both groups showed hypertension in their members, and both groups had a homogeneity matched for body weight, height and body mass index. The placebo group members were an average of six years younger in age, while the polyglucosamine (L112) group members had an average age of 50. If anything, this would help the placebo group in terms of superior response in terms of losing weight. However, as we shall see, the results were significantly in favor of polyglucosamine (L112).

Changes of the Systolic Blood Pressure Group Averages



Changes of the Diastolic Blood Pressure Group Averages



Jan Abelin, M.D. and Allan Lassus, M.D. conducted the study. The average weight loss for the polyglucosamine (L112) group was a full 6,7 kilogramm in a 4-week period, whereas the placebo group only had a weight loss average of 2,5 kilogramm. The weight reduction was also associated with a significant decrease in blood pressure. The average diastolic blood pressure reading fell 20 millimeters of mercury with an additional 9 millimeters of mercury pressure drop in the systolic.

It is a known fact that being overweight is a contributor to high blood pressure, which in turn may lead to stroke. Here we have a single product that reduces body weight and lowers the blood pressure as effectively as most drugs with no side effects whatsoever. The researchers concluded that in this trial, polyglucosamine (L112) appeared to be a nontoxic, well-tolerated, effective natural product in helping people achieve weight reduction and normal blood pressure.

Reduction Body Weight

Body Weight in KG. Group Averages
(1 KG = 2.2 pounds)

