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Effect of Dietary Supplementation with *Fucus Vesiculosus* and *Ascophyllum Nodosum* (Gdue™) on Fasting Blood Insulin and Glucose Levels and Abdominal Circumference: A Clinical Study

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E edible seaweeds have been consumed by Asian coastal communities since ancient times. *Fucus vesiculosus* and *Ascophyllum nodosum* extracts have been traditionally used for the treatment of obesity and several gastrointestinal diseases. We have recently demonstrated that the phytocomplex obtained from these algae (Gdue™) controls postprandial plasma glucose levels in a mouse model of steatohepatitis, a condition present in 25–30% of patients with obesity or type 2 diabetes (T2DM) and more than 35% of severely obese patients who have T2DM. In this study, we analysed the effect of this commercially available extract on three risk factors for metabolic syndrome, i.e. abdominal circumference, fasting blood glucose and insulin levels in 53 overweight or obese subjects. Abdominal circumference was measured at the beginning and the end of the study (time 0 and 6 months), whereas plasma glucose and insulin were measured at time 0, and after 3 and 6 months. The data obtained were analysed by one-way ANOVA followed by Newman Keuls *post hoc* test or by Student's t test, when appropriate. Data are expressed as mean ± SD). We observed that abdominal circumference was significantly decreased after 6 months of treatment (112 ± 17 vs 105 ± 13 cm before and after 6 months of treatment, respectively; $p < 0.0001$). Both blood glucose and insulin were significantly reduced after 3 and 6 months of treatment with Gdue™ (110 ± 15 at time 0 vs 103 ± 12 and 98 ± 15 mg/dl after 3 and 6 months, respectively, for glucose levels; $p < 0.0001$; $22,6 \pm 9,5$ at time 0 vs $18,8 \pm 9,3$ and $17,8 \pm 8,6$ μ U/ml after 3 and 6 months, respectively, for insulin levels; $p < 0,05$). On the basis of the results obtained in this study, it is possible to conclude that the phytocomplex obtained from *Fucus vesiculosus* and *Ascophyllum nodosum* is a dietary supplement useful for helping the control of metabolic syndrome risk factors in overweight or obese subjects.