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SUPPLEMENTARY TREATMENT WITH EXTRACT OF AGARICUS BLAZEI MURILL IMPROVES INSULIN RESISTANCE IN TYPE 2 DIABETES: A RANDOMIZED, DOUBLE-BLIND AND PLACEBO-CONTROLLED CLINICAL TRIAL

C-H Hsu[1,4], K-C Hwang [2], Y-L Liao[3], S-C Lin[3], P Chou[1]

[1]The Community Medicine Research Center and Institute of Public Health, National Yang-Ming University, Taipei, Taiwan; Department of [2]Pediatrics, [3]Endocrinology, [4]Chinese Medicine, Taipei Hospital, Taiwan.

BACKGROUND/AIMS: Use of complementary and alternative medicine in Type 2 diabetic adults is popular. This study aims to determine whether the supplement of Agaricus Blazei Murill (ABM) extract improves insulin resistance in Type 2 diabetes.

METHODS: This study was a clinical randomized, double-blind, placebo-controlled trial. Out of 536 registered diabetic patients, 72 subjects who met the following criteria were enrolled in this study: (1) age between 30 and 75 years, (2) Chinese, (3) with type 2 diabetes for more than 1 year, and (4) has been taking gliclazide and metformin for more than 6 months. The enrolled patients were randomly assigned to receive either a supplement consisting of ABM extract or placebo (cellulose) 1500 g daily for 12 weeks. The homeostasis model assessment for insulin resistance (HOMA-IR) was used as the major outcome measure.

RESULTS: At the end of the study, subjects who received supplements of ABM extract (n = 29) had a significantly lower HOMA-IR index (3.6 ± 2.5 vs 6.6 ± 7.4; p = 0.04) than the control group (n = 31). The plasma adiponectin concentration increased by 20.0 (40.7%) in the ABM group after 12 weeks of treatment, but decreased in the placebo group.

DISCUSSION/CONCLUSIONS: Supplementation with ABM extract improves insulin resistance in type 2 diabetes subjects. An increase in adiponectin concentration after taking AMB extract for 12 weeks might be the underlying mechanism for the beneficial effect. Studies with longer periods of follow-up should be conducted in the future.

Key words: Agaricus Blazei Murill; Insulin resistance; Adiponectin