STUDY ON ANTI-OBESITY EFFECTS OF BUGI IN HIGH-FAT DIET-INDUCED OBESE MOUSE MODEL

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Buginawa (Bugi) is a newly developed formulawith the aim of preventing obesity and is made up oftwelve medicinal herbs :Cucurbita spp., Angelica gigas, Cnidiumofficinale Makino, Poriacocos, Glycyrrhizauralensis, Lyciumchinense, ChaenomelessinensisKoebhne, Acanthopanax, A. lancea var. chinensis, Citrus unshiuMarkovich, Zingiberofficinale, and Zizyphus jujube Mill. In this study, we aimed to examine the anti-obesity effects of Bugi on high fat diet (HFD)-induced obese mouse model by suppressing adipogenesis. Male C57BL/6 mice were fed an HFD or normal diet for 11 weeks. The Bugi-treated groups were orally administered by Bugi at dose of 50 or 100 mg/kg, whereas the other groups were received by physiological saline. Oral administration of Bugi reduced body weight, epididymal, and visceral white adipose tissue (WAT) weight and regulated the serum total cholesterol. In addition, Bugi inhibited adipogenesis by down-expression of transcription factors, such as CCAAT/enhancer-binding proteins (C/EBPs), sterol regulatory element-binding protein 1 (SREBP1), and peroxisome proliferator-activated receptor gamma (PPARγ) in the liver tissue. These findings demonstrate that Bugi would be evaluated as a potential treatment for obesity. This work was supported by the Technology development Program (C0532195) funded by the Ministry of SMEs and Startups (MSS, Korea).

Keywords - Bugi, high-fat diet, adipogenesis, obesity