Atheroprotective effect of the Agaricus blazei Mur ill extract in High Fat Diet-Induced Mice

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Abstract

The purpose of the present study was to provide evidence of the potential of Agaricus blazei Murill extract as atheroprotective agent. The study was conducted with 25 male mice (Mus musculus) divided into f ive groups consisting of f ive mice in each group. Three doses of Agaricus blazei Murill extract: D1 (100 mg/kg body weight), D2 (200 mg/kg body weight), and D3 (400 mg/kg body weight) was used. All treatment groups, except for normal mice were induced to high fat diet (HFD) and given A. blazei extract for 12 weeks. The activation of T regulatory cells, the production of anti-inflammatory cytokines TGF-?, and the number of LpPLA2-expressing cells in spleen were analyzed using flow cytometry. Results showed that administration of A. blazei extract was able to induce activation of T regulatory cells, increased the production of anti-inflammatory cytokines TGF-β, and decreased the number of LpPLA2-expressing cells in the spleen signif icantly. Our results revealed that A. blazei extract is a good candidate as atheroprotective agent by reducing inflammation in atheroschlerosis.

Keyword: *Agaricus blazei* High fat diet (HFD), PAF-AH, TGF-β, T regulator cells.