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### Supplementary effects of black rice (*Oryza sativa* L) aleurone layer extract on body fat, serum lipid and serum hormone levels in ovariectomized rats

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This study was conducted to evaluate suppressive effects of black rice aleurone layer extract (BRE) on body fat, serum lipid and hormone levels in ovariectomized rats. The rats were divided into five groups (n=8/group): Sham operated group (S); Ovariectomized control group (OVX); Ovariectomized group treated with isoflavone 10 mg/kg B.W. (IF); Ovariectomized group treated with BRE 30 or 90 mg/kg B.W. (BRE-30 or 90). High fat diet (45% calories from fat) was fed to all rats for 12 weeks. Body weight gain, body fat weight and adiposity index increased in the OVX group, but they significantly decreased in IF or BRE supplementation. Serum triacylglycerol and leptin levels decreased in BRE groups while serum adiponectin level significantly increased compared to that of the OVX group. Hepatic total lipid, triglyceride or cholesterol levels increased in the OVX group but they decreased in BRE supplementation (p>0.05). These data suggest that black rice aleurone layer may be a useful food source to decrease obesity and its related diseases by modulating lipid metabolism in estrogen-deficiency model.

#### Biography

Sunghyen Lee has completed her PhD from Seoul National University and Postdoctoral studies from ARS-USDA. She is the Scientist of RDA, a national research institute in Korea. She has published more than 125 papers in reputed journals and has been serving as an Editorial Board Member of many nutrition and immunology societies.

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