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Antioxidative Effect of Sea Cucumber *Stichopus japonicus* extract in Ovariectomized Rat

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This study was carried out to investigate the effect of antioxidative enzymatic activity in ovariectomized (OVX) rats. Fucoidan was isolated from ethanol extract of the sea cucumber *Stichopus japonicus* (SJ). SJE (100 mg / kg) was intraperitoneally administered into ovariectomized rats for 8 weeks. Aspartate aminotransferase (AST), Alanine aminotransferase (ALT), Superoxide dismutase (SOD), Catalase (CAT), reduced Glutathione (GSH), oxidized Glutathione (GSSG) and Glutathione peroxidase (GPx) were measured in liver homogenate and sera. SJE administered and ovariectomized (SJX) group showed inhibitory effect in AST and ALT activity compared to ovariectomized (OVX) group. SOD and CAT in SJE administered group were increased compared to those of OVX group. GSH, GSSG and GPx of SJX group were significantly higher than those of OVX group. These results showed that SJE could be a natural biomedical material related to the antioxidative reagent.

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