Effect of glycans of Saccharum officinarum on carbohydrate and lipid metabolism of rats

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Abstract

A polysaccharide fraction of Saccharum officinarum was tested for its effects on carbohydrate and lipid metabolism in normal rats and those fed a high sugar diet. Feeding with the high sugar diet induced an elevation of serum glucose and significant accumulation of lipid peroxides in the serum and liver. The accumulation of lipid peroxides was inhibited by combined feeding with the polysaccharide fraction. Pathological examination showed that endothelial cell swelling in ascending aorta was found in one third of rats receiving the high sugar diet control but no pathological change was observed in all of the rats concurrently treated with the polysaccharide fraction.


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