

ストレプトゾトシン糖尿ラットの血清と 臓器の各種脂質および α -トコフェロール 濃度に及ぼす魚油投与の影響

Influences of Dietary Fish Oil on Concentrations of
Lipids and α -Tocopherol in Serum and Organs of
Streptozotocin-Induced Diabetic Rats

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One-month old male rats who were treated with streptozotocin injection, were fed the diets containing 5% olive oil 5% fish oil for 2 weeks. Influence of the dietary fat on concentrations of triglyceride(TG), total cholesterol(Chol) and α -tocopherol(Toc) in serum and several organs of the rats was investigated. In the normal rats, serum TG, total Chol, Toc and liver Toc of the fish oil group were significantly lower than those of the olive oil group. In the diabetic rats, however, this effect of the fish oil diet on the concentration of these lipids in serum and liver of rats was not significant, although the serum and liver lipids of the diabetic rats were elevated. On the other hand, ratio of 20 : 4/18 : 2 in liver phospholipids of the fish oil groups was lower on both normal and diabetic rats, as compared with those of the olive oil groups. The ratio of 22 : 6/22 : 5 in liver phospholipids of the diabetic rats fed the fish oil diet was higher than that of the normal rats.

These results suggest that the correction of the hyperlipidosis in serum and liver by fish oil diet may be difficult in diabetics, and that a desaturase activity may decrease with the fish oil diet in both the normal and diabetics rats.

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