

Oligochitin prevent PPAR-gamma expression in induced fat-liver by fed ethanol

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Oligochitin is reacylated a natural compound from oligochito (2-15 oligosaccharide), that extracted from the shells of crustaceans. Chitosan is the deacetylated form of chitin that is wild distributed in microorganism, fungi, crustaceans, and plants. Whereas the polysaccharide used for purpose of industrial, medical, biomedical, and diet, but oligochitin did unknown. We studied the effect of chitosan, oligochitin, and oligochito diet on suppression of lipid droplet in ethanol-induced liver injury. Blood glucose, total cholesterol level, and lipid droplet formation in liver were significantly reduced in fed oligochitin group than other group. The FAS (fatty acid synthase), PPAR-a, PPAR-r and MHG-CoA reductase mRNA were lower expressed in fed oligochitin mice liver. In particular, expression of PPAR-r was corrected with reduced lipid droplet in liver. These result suggest that oligochitin is prevent the formation of liver lipid-droplet in fed ethanol mice.