研究業績　英文表記

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Title	Dietary lysophospholipids reduce lymphatic cholesterol transport compared with dietary phospholipids in thoracic lymph‐duct cannulated rats
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Abstract	Dietary phospholipids have been traditionally known to affect micelle formation. Egg yolk-derived lysophospholipids (LysoPL) are commercially available. We investigated the effects of dietary LysoPL on lymphatic lipid transport. We also compared *sn*-1 LysoPL and *sn*-2 LysoPL, which have different fatty acyl esterification positions. Thoracic lymph duct-cannulated rats were fed a diet supplemented with egg yolk-derived *sn*-1 LysoPL, *sn*-2 LysoPL, or phospholipids (PL). The amount of lymphatic lipid transport was also evaluated. Time courses of transport were applied to the one-compartment model as one of the pharmacokinetic analyses. The solubility of cholesterol in bile acid micelles was measured. Compared to the PL diet, the *sn*-1 and *sn*-2 LysoPL diets significantly reduced the lymphatic transport of cholesterol. There were no differences in the lymphatic PL and TAG transport. There was*sn*o difference in cholesterol transport between the *sn*-1 LysoPL group and the *sn*-2 LysoPL group; however, the transport rate constant at a decrease in lymphatic cholesterol was lower in the *sn*-1 LysoPL group than in the *sn*-2 LysoPL group. Cholesterol solubility in bile acid micelles was significantly decreased in the *sn*-1 LysoPL and *sn*-2 LysoPL groups compared to that in the PL group. Dietary LysoPL affects the behavior of intestinal cholesterol and suppresses lymphatic cholesterol transport.
keyword	bile acid micelles, cholesterol solubility, lymphatic cholesterol transport, lysophospholipids, thoracic lymph-duct cannulated rats

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