

Cefoxitin のラット小腸吸収に及ぼす Triglyceride の影響

吉富博則、西畑利明*、Gregory Frederick**、Margaret Dillsaver**、
Takeru Higuchi**

J. Pharm. Pharmacol., 39 (11), 887~891 (1987)

Effect of triglyceride on small intestinal absorption of cefoxitin in rats

Hironori YOSHITOMI, Toshiaki NISHIHATA*, Gregory FREDERICK**,
Margaret DILLSAVER** AND Takeru HIGUCHI**

Coadministration of trilaurin or monolaurin with sodium cefoxitin increased its absorption from the small intestine of the rat. Its absorption from the rectum was effected to a lesser extent except when lipase was present. Lipase, a natural constituent of the small intestine fluid, may therefore be essential for the adjuvant action of trilaurin on cefoxitin absorption across the intestinal membrane. Among the triglycerides used, trilaurin and tricaprln were the most effective enhancers of cefoxitin absorption. Both the rate of degradation of triglyceride to its fatty acid component and subsequently the rate of fatty acid absorption were factors influencing the enhancing action. Maintenance of fatty acid concentration at the small intestinal absorption site was shown to be necessary to obtain a cefoxitin bioavailability of up to 70%.

抄録 Trilaurin (TL) と Monolaurin の併用により Na Cefoxitin のラット小腸吸収は増加したが、直腸内では効果がなかった。TL の吸収増強作用には、Lipase が必須であった。Triglyceride のうち TL と Tricaprin が最も効果が強く、小腸内での TG 自体の消化と吸収速度が、吸収促進効果に影響する。消化産物である遊離脂肪酸の濃度を適当に保てば、Cefoxitin の bioavailability は70%以上であった。

* 大阪大学

** Kansas大学