Influence of Croton tiglium Seeds on the Pharmacokinetics of Anthraquinones in Radix et Rhizoma Rhei

Jingze ZHANG 1, Wenyuan GAO 1*, Chaoyi MA 1, Ying GAO 1, Zhen LIU 1, Liu YANG 1 & Changxiao LIU 2

1 School of Pharmaceutical Science and Technology, Tianjin University, Tianjin 300072, China
2 Tianjin Institute of Pharmaceutical Research, Tianjin 300193, China

SUMMARY. In this study, the influence of Croton tiglium seeds on the pharmacokinetic of rhein in Radix et Rhizoma Rhei was performed to elucidate the compatibility relationship of these two herbs. The pharmacokinetics of rhein was studied following oral administration of pure rhein, Radix et Rhizoma Rhei methanol extract (RE) and Radix et Rhizoma Rhei and seeds of Croton tiglium methanol extract (RCE), with approximately the same dose of 10mg/kg. It was found that comparing with that in monomer, both AUC and Cmax of rhein in RE and different proportion of RCE were significantly different. The results indicated that comparing with the monomer, the concentration of rhein in the plasma was increased in the group of RE whereas the tendency of AUC and Cmax of rhein in RCE presented quite discrepancy depending on the different proportion of RCE.