

赤芍薬の総グリコシド自己マイクロ乳化ドラッグデリバリーシステムに関する処方研究及び薬物動態学的評価

○陳立江¹(¹遼寧大薬)

Radix Paeoniae Rubra is the dried root of *Paeonia lactiflora* Pall. or *Paeonia veitchii* Lynch. Total paeony glycoside (TPG) is extracted and purified from Radix Paeoniae Rubra. It has significant role of cerebrovascular. However, there are few dosage forms of TPG in the market because of its low bioavailability. Self-microemulsifying drug delivery systems (SMEDDS) are a vital tool in solving low bioavailability of poor absorption drugs. So the objective of this study was to develop a new TPG-SMEDDS for the oral delivery of poorly soluble TPG. Through the construction of pseudo-ternary phase diagrams, we got the optimum prescription, which consisted of 18.70 %TPG, 16.27 % Ethyl Oleate as oil, 43.34 % Cremophor RH40 as surfactant and 21.73 % Transcutol P as cosurfactant. Then we evaluated the characterizations of TPG-SMEDDS including morphological characterization, droplet size, zeta-potential, emulsification time, and dissolution study of TPG-SMEDDS. The results showed that TPG-SMEDDS was stable and its release rate was high in four different media. Through the bioavailability studies of TPG-SMEDDS compared with TPG-suspension in rats, we found that the relative bioavailability of SMEDDS was dramatically enhanced in an average of 1.52-fold that of TPG-suspension. It concluded that the bioavailability of TPG was enhanced greatly by SMEDDS. These results provided a reference for clinical medication.