Title

The bioavailability of reduced coenzyme Q10 water-dispersive powder (ShiroQ®)after single oral administration.

Abstract

In this study, we showed the bioavailability of ubiquinol (QH) in the form of water-dispersive powder(ShiroQ®). Two groups of 5 healthy young subjects received single oral administration of 100 mg of QH in the form of a soft capsule containing QH dissolved in safflower oil or 40% water-dispersive powder(ShiroQ®) in the fasting period, and changes in the plasma QH concentration were monitored over time. The plasma QH concentration before administration was 0.68 ± 0.08 μg/ml. Tmax was 6 hours after the administration. Cmax values compared with the pre-administration baseline in the soft capsule and ShiroQ® groups were 0.4 ± 0.21 and 0.89 ± 0.27 μg/ml, respectively, and $AUC_{0\text{-}24hr}$ values were 3.59 ± 1.63 and 9.68 ± 2.35 μg·h/ml, respectively. The water-dispersive powder form of QH (ShiroQ®) exhibited superior bioavailability even when administered in the fasting period.

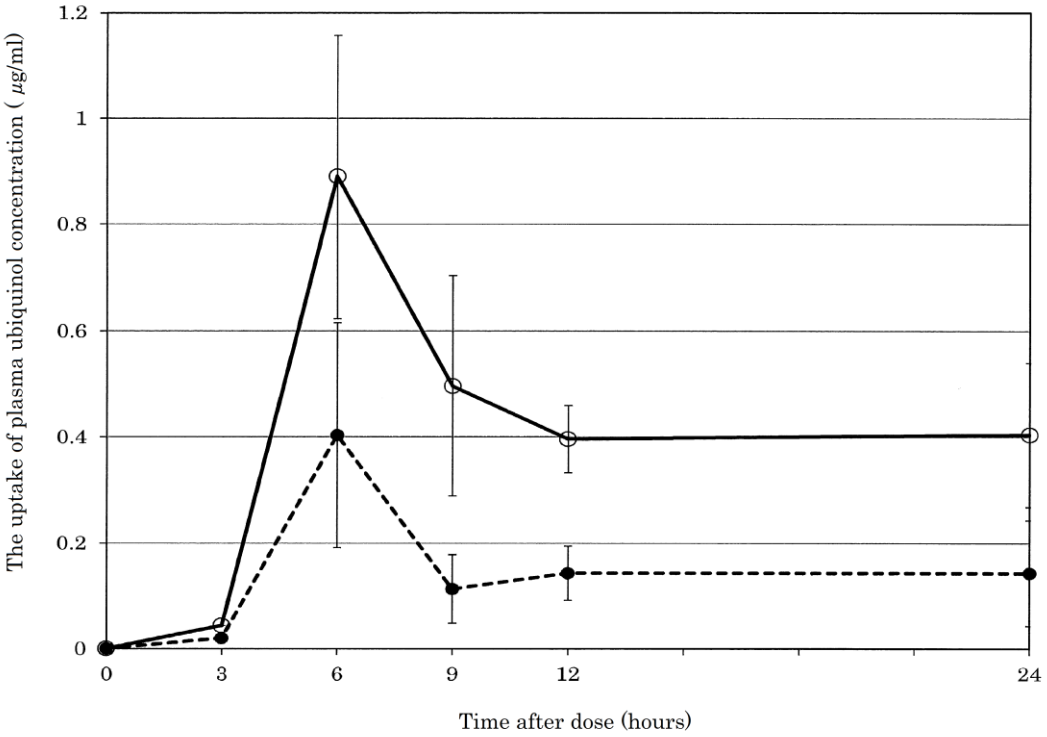

Fig. 1. The uptake of plasma ubiquinol concentration-time curves after single oral administration.

—○— ; Ubiquinol 40% Water-dispersive Powder (ShiroQ) - -●- - ; Soft gelatin capsule (Ubiquinol with Safflower oil, etc)

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