液闪法研究14C-尿素在小鼠体内的吸收及分布和排泄

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摘 要：本文报道应用液体闪烁测量方法研究14C-尿素在小鼠体内的吸收、分布和排泄。小鼠口服14C-尿素后，血药浓度时间曲线符合二房室开放模型。吸收速率常数Ka为3.64/h，分布相半衰期T1/2(α)为0.72h，消除相半衰期T1/2(β)为5.15h，清除速率常数CL为0.617L-1.Kg-1.h-1，表观分布容积Vd为5.59L/Kg，达峰时间Tmax为0.11h，峰浓度Cmax为1.57KBq/mL。在所测12种组织中均有14C-尿素存在，0.25h肾中放射性最高，心，肝，脾,肺，肠，胃较多，2h肺中放射性最高，脂肪最少。24h肝中放射性最高。24h粪尿排出给药量的65%，其中46%经尿排出，19%经粪排出。

关键词：

Absorption distribution and elimination of 14C-urea in mice

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Abstract: the study reported the feature on absorption, distribution and elimination of 14C-urea in mice. The14C-urea concentration in blood-time curve after oral administration of 14C-urea was shown to fit a two compartment open model. Ka=3.64/h, T1/2(α)=0.72h, T1/2(β)=5.15, CL=0.617 L-1.Kg-1.h-1, Vd=5.59L/Kg, Tmax=0.11h, Cmax=1.57KBq/L. There was 14C-urea in 12 tissues tested.In 0.25h radioactivity in kidney was the highest, that in heart, liver, spleen, lung and intestine and stomach. In 2h radioactivity in lung was the highest, In 24h radioactivity in liver was the highest. In 24h 65% of radioactivity of oral administration was eliminated by urine and feces, 46% by urine, 19% by feces.

Key words: