

研究简报

液闪法研究⁶³Ni-NiCl₂在大鼠体内的吸收、分布及排泄

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摘要

采用液体闪烁计数法研究了 ⁶³NiNiCl₂ 在大白鼠体内的吸收、分布以及排泄。结果显示: ⁶³NiNiCl₂ 在大白鼠体内的血药时间-浓度曲线符合二房室开放模型, 吸收速率常数 $K_a=6.18/h$, 分布相半衰期 $T_{1/2(\alpha)}=0.79 h$, 消除相半衰期 $T_{1/2(\beta)}=40.68 h$, 清除速率常数 $CL=0.42 mL \cdot kg^{-1} \cdot h^{-1}$, 达峰时间 $T_{peak}=0.53 h$, 达峰浓度 $C_{max}=14.99 GBq/L$, 表观容积分布 $V_d=0.016 L/kg$; 在所测的12种组织中均有 ⁶³NiNiCl₂ 放射性摄取; 在灌胃0.25 h时, 肠、胃、腹膜后脂肪放射性摄取较高, 3 h时, 肠、胃、肝放射性摄取较多, 生殖腺放射性摄取最少, 24 h肝肺放射性摄取偏高; 24 h内粪尿排出给药量的83.26%, 其中经过尿液排出 54.86%, 经过粪便排出28.41%。

关键词 [⁶³Ni-NiCl₂](#) [吸收](#) [分布](#) [排泄](#)

分类号

Absorption Distribution and Excretion of ⁶³Ni-NiCl₂ in Rat

Abstract

The uptake, distribution and excretion of ⁶³NiNiCl₂ in rat were studied by liquid scintillation counting method. It was observed that the concentration-time curves in blood fitted the two compartment model of pharmacokinetics, $K_a=6.18 h$, $T_{1/2(\alpha)}=0.79 h$, $T_{1/2(\beta)}=40.68 h$, $CL=0.42 mL \cdot kg^{-1} \cdot h^{-1}$, $T_{peak}=0.53 h$, $C_{max}=14.99 GBq/L$, $V_d=0.016 L/kg$. ⁶³NiNiCl₂ was existed in all of 12 tissues tested; at 0.25 h, radioactivity in intestine were the highest, and that in stomach and fattiness were higher; at 3 h, liver, stomach and intestine were higher; the germen was the least; The liver and lung was the higher at 24 h. In 24 h 83.26% of radioactivity of oral administration was eliminated by urine and feces, 54.86% by urine, 28.41% by feces.

Key words [Absorption](#) [Distribution](#) [Elimination](#)

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