

研究简报

# 高碘饮食对小鼠甲状腺摄碘功能的影响

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**摘要** 按照不同剂量高碘饮食喂养小鼠1周后,腹腔注射  $^{99}\text{Tc}^{\text{m}}\text{O}_4$  - 43.7 MBq,于不同时间点将小鼠处死,取其甲状腺称质量,同时测量小鼠甲状腺的放射性计数计算其摄碘率。采用Dunnett t 检验与SNK q检验对数据进行对比分析,探讨高碘饮食对小鼠甲状腺摄碘功能的影响。结果显示,与对照组相比,小鼠饮食中碘含量为正常饮食含碘量的5倍、10倍、100倍、1000倍时,其甲状腺在10、20、60 min 3个时间点上对碘的摄取均受到明显抑制 ( $t_{1,0}$  (10 min) =7.364,  $t_{2,0}$  (10 min) =6.807,  $t_{3,0}$  (10 min) =6.674,  $t_{4,0}$  (10 min) =5.594;  $t_{1,0}$  (20 min) =9.843,  $t_{2,0}$  (20 min) = 9.730 ,  $t_{3,0}$  (20 min) =9.132,  $t_{4,0}$  (20 min) =9.128;  $t_{1,0}$  (60 min) =5.958,  $t_{2,0}$  (60 min) =8.292,  $t_{3,0}$  (60 min) =8.147,  $t_{4,0}$  (60 min) =6.358 , P均<0.01)。但不同浓度含碘饮食组间在以上3个时间点对碘摄取的抑制程度无显著性差异。在30 min这个时间点上,各浓度高碘饮食组的摄碘量虽低于对照组,但该差异不具有显著性(P>0.05)。以上结果提示,高碘饮食对小鼠甲状腺摄碘功能具有明显抑制作用,值得临床关注

关键词 [甲状腺](#) [小鼠](#)  [\$^{99}\text{Tcm}\$ 高碘酸盐](#)

分类号

## Effects of high iodine-containing diet on $^{99}\text{TcmO}_4$ - uptake in mice

### Abstract

KM mice were fed with various dose iodine containing diet for 1 week, and then, injected into  $^{99}\text{Tc}^{\text{m}}\text{O}_4$  - 43.7 MBq,  $^{99}\text{Tc}^{\text{m}}$  uptake were measured at different time, the main aim is to study the effects of high Iodine containing diet on  $^{99}\text{Tc}^{\text{m}}$  uptake of thyroid.  $^{99}\text{Tc}^{\text{m}}$  uptake were measured at the different time. Contrast analysis of the data were done by the Dunnett t test and SNK q test. Compared with the control group, the significant differences were found at different time between high iodine containing and normal diet groups at the time of 10 , 20 and 60 min ( $t_{1,0}$  (10 min) =7.364,  $t_{2,0}$  (10 min) =6.807,  $t_{3,0}$  (10 min) =6.674,  $t_{4,0}$  (10 min) =5.594;  $t_{1,0}$  (20 min) =9.843,  $t_{2,0}$  (20 min) = 9.730 ,  $t_{3,0}$  (20 min) =9.132,  $t_{4,0}$  (20 min) =9.128;  $t_{1,0}$  (60 min) =5.958,  $t_{2,0}$  (60 min) =8.292,  $t_{3,0}$  (60 min) =8.147,  $t_{4,0}$  (60 min) =6.358 P <0.01) . But at the time of 30 min, there is no significant difference for  $^{99}\text{Tc}^{\text{m}}\text{O}_4$  uptake between the control group and the high iodine containing diet group. All the results show that high iodine containing diet depressed the function of  $^{99}\text{Tc}^{\text{m}}\text{O}_4$  uptake in the thyroid of mice.

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**Key words** [thyroid](#) [mice](#) [99Tcm-pertechnetate](#)

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