

## 镉对雄性小鼠生精细胞的影响\*

蒋耀青, 张乃昌, 吴 鉴, 顾苏滨, 朱苏玲, 李芳媛, 孙海源

中国科学院遗传研究所, 北京

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** 为了研究镉对小鼠生殖力和生精细胞的作用, 本方对氯化镉处理后的雄性小鼠进行了交配实验, 以观察其对怀孕率、每窝产仔数及子代性比的影响。测定比较了注射镉后, 小鼠成熟精子的总LDH酶和LDH-X酶的活性; 还用双向电泳方法分析了成熟精子的蛋白质变化。结果表明, 处理组在怀孕率、每窝产仔数及子代性比方面无统计学意义的差异。成熟精子的总LDH活性经镉处理后未发现明显变化, 但镉能显著地抑制与精子运动的能量有关的LDH-X酶的活性。双向电泳图谱表示, 镉处理后, 精子中含量较少的三组蛋白质或消失不见, 或发生明显变化。

**关键词** [镉处理](#), [生精细胞](#), [LDH-X酶](#), [小鼠](#)

分类号

## Effects of Cadmium on Spermatogenic Cells of Male Mice

Jiang Yaoqing, Zhang Naichang, Wu Jian, Gu Subin, Zhu Suling, Li Fangyuan, Sun Haiyuan

Institute of Genetics, Academia Sinica, Beijing

### Abstract

Male mice treated by cadmium chloride were mated with normal female mice in order to study the changes of pregnant rate, average litter size and sex ratio of progenies. The specific activity of the LDH and LDH-X enzymes in mature sperm extracts of the cadmium-treated mice were also detected and compared. In addition, the changes of proteins in the sperm of the treated male mice were analyzed by using the two-dimensional electrophoresis technique. The results demonstrated that there was no significant difference in pregnant rate, average litter size and sex ratio between experimental and control groups. The specific activity of LDH enzyme in mature sperms of cadmium-treated mice was the same as in the control. However, cadmium could inhibit the activity of LDH-X remarkably. The electro-phoretogram have showed, that after the treatment by cadmium, three groups of protein in the extracts of mice sperms either disappeared or changed remarkably.

**Key words** [Gadmium treated](#) [Spermatogenous cell](#) [LDH-X enzyme](#) [Mice](#)

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