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### 小鼠睾丸发育全过程中生精细胞的自发性凋亡

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A study on the spontaneous apoptosis of germ cells in mice testis at their different developmental stages

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- 摘要
- 参考文献
- 相关文章

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**摘要** 以17组出生后不同发育阶段的昆明种正常小鼠睾丸组织为材料,采用TDT原位末端标记法在其石蜡组织切片上进行凋亡细胞原位检测,探讨小鼠睾丸发育全过程中生精细胞的自发性凋亡规律. 结果发现: 小鼠生精细胞从生后开始就存在自发性凋亡现象,生后1~15 d,凋亡精原细胞数目不断增加;至生后第15天时达到峰值,且15 d起个别初级精母细胞也开始出现凋亡;至27 d时,极少数次级精母细胞和精子细胞出现凋亡;至30 d时凋亡细胞基本为精原细胞;而33 d时各类型生精细胞均存在凋亡现象;至36 d时凋亡细胞又重新集中于精原细胞,并延续于此后续各期. 上述结果表明: 小鼠睾丸发育过程中凋亡细胞主要为精原细胞;自发性凋亡活跃期发生于生后1~33 d,与生精细胞的首次发育成熟过程同步.

**关键词:** 睾丸发育 小鼠生精细胞 自发性凋亡

**Abstract:** To observe the spontaneous apoptosis of germ cells during the development of testis in mice, tests in situ are performed on the paraffin tissue slices of the testis at different developmental stages by the TUNEL detection, and 17 groups of Kunming normal mice are included. The results show that the spontaneous apoptosis is existed in the early postnatal mice testis. The number of apoptotic spermatogonia is increasing from the 1st to 15th day after birth; a few apoptotic primary spermatocyte is also observed on the 15th day; a few apoptotic secondary spermatocyte and round spermatids also appears on the 27th day; on the 30th day, apoptotic cells are only observed in spermatogonia; on the 33rd day, apoptosis occurs in all types of germ cells; up to the 36th day, the apoptosis is focused on spermatogonia again and lasts during the whole subsequent stages. It indicates that the main apoptotic cells are spermatogonia at diverse development stages; the period of active apoptosis is from the 1st to 33rd day after birth, and is synchronous with the maturing process of primitive germ cells.

**Key words:**

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