

[1]宗兆文,陈思旭,贾敏,等.Osterix在调控脊柱发育中的作用[J].第三军医大学学报,2013,35(03):220-222.

Zong Zhaowen,Chen Sixu,Jia Min,et al.Role of Osterix in development of spine in mice[J].J Third Mil Med Univ,2013,35(03):220-222.

[点击复制](#)

## Osterix在调控脊柱发育中的作用(PDF)分享到:

《第三军医大学学报》[ISSN:1000-5404/CN:51-1095/R] 卷: 35 期数: 2013年第03期 页码: 220-222 栏目: 论著 出版日期: 2013-02-15

Title: Role of Osterix in development of spine in mice

作者: [宗兆文](#); [陈思旭](#); [贾敏](#); [沈岳](#); [赵玉峰](#); [郭庆山](#); [华翔](#); [Jerry Feng](#)

第三军医大学大坪医院野战外科研究所创伤科,创伤、烧伤与复合伤国家重点实验室; 德克萨斯州卫生科学中心Baylor医学院

Author(s): [Zong Zhaowen](#); [Chen Sixu](#); [Jia Min](#); [Shen Yue](#); [Zhao Yufeng](#); [Guo Qingshan](#); [Hua Xiang](#); [Jerry Feng](#)

State Key Laboratory of Trauma, Burs and Combined Injury, Department of Trauma, Institute of Surgery Research, Daping Hospital, Third Military Medical University, Chongqing, 400042, China; Medical College of Baylor, Health and Science Center of Texas, USA

关键词: [Osterix](#); [脊柱](#); [发育](#); [基因敲除](#)

Keywords: [Osterix](#); [spine](#); [development](#); [knockout](#)

分类号: R336;R394.1;R682.3

文献标志码: A

摘要: 目的 观察核转录因子Osterix在脊柱发育中的作用。 方法 采用Lox P/Cre系统,以2.3 kb I型胶原蛋白为启动子,在小鼠成骨细胞和骨细胞中特异性敲除Osterix,观察Osterix敲除小鼠大体情况,采用X线摄片、HE染色和Nissl染色观察其对小鼠脊柱发育的影响。 结果 Osterix敲除小鼠后肢瘫痪,行走时前肢运动正常,拖后腿爬行, Osterix 的敲除效率约为75%;X线片结果显示, Osterix敲除小鼠形体变小,胸腰段脊柱出现楔形椎体、严重的脊柱侧弯和椎管狭窄等畸形; HE染色结果显示胸腰段脊椎结构发育严重异常; Nissl染色结果显示,受累节段脊髓神经元结构严重受损。 结论 Osterix在脊柱发育中起到重要作用,敲除后可导致脊柱侧弯等畸形。

Abstract: Objective To investigate the role of Osterix in spine development.

Methods Osterix was knocked out by crossing 2.3 kb Collagen I Cre mice with Osterix Lox P +/+ mice. X-ray radiology, HE staining and Nissl staining were employed to observe the effect of Osterix knockout on spine development.

Results Osterix knockout mice demonstrated short stature, wedged vertebrae, severe scoliosis and spinal stenosis at the thoracic and lumbar regions of spine. HE staining showed that the structure of growth plate, vertebral body and spinal canal were totally disorganized. Nissl staining revealed that the neurons in the spinal cord at the inflicted region were strikingly damaged.

导航/NAVIGATE

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

工具/TOOLS

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(876KB\)](#)

[立即打印本文/Print Now](#)

[查看/发表评论/Comments](#)

[导出](#)

统计/STATISTICS

[摘要浏览/Viewed](#) 225

[全文下载/Downloads](#) 106

[评论/Comments](#)

[RSS](#) [XML](#)

Conclusion Osterix plays an important role in spine development, and Osterix knockout leads to severe spinal deformities such as scoliosis.

---

参考文献/REFERENCES:

宗兆文, 陈思旭, 贾敏, 等. Osterix在调控脊柱发育中的作用[J]. 第三军医大学学报, 2013, 35(3):220-222.

相似文献/REFERENCES:

[1]刘鹏,赵建华,范伟力,等. 新型止血材料Arista AH在脊柱手术中的临床应用[J]. 第三军医大学学报, 2005, 27(23):2382.

[2]殷翔,许建中,周强,等. 椎弓根螺钉固定三维矫治特发性脊柱侧凸的疗效[J]. 第三军医大学学报, 2007, 29(14):1440.

YIN Xiang, XU Jian-zhong, ZHOU Qiang, et al. Efficacy of pedicle screw technique for orthomorphia of idiopathic scoliosis[J]. J Third Mil Med Univ, 2007, 29(03):1440.

[3]王文献,杨华,刘卫金,等. MRI对脊柱损伤全面性评估的临床价值[J]. 第三军医大学学报, 2009, 31(15):1495.

WANG Wen-xian, YANG Hua, LIU Wei-jin, et al. Clinical value of MRI in comprehensive evaluation of spinal injuries[J]. J Third Mil Med Univ, 2009, 31(03):1495.

[4]金卫东,王自立,马小民,等. 156例脊柱结核患者抗结核药物副作用临床分析[J]. 第三军医大学学报, 2009, 31(20):1932.

JIN Wei-dong, WANG Zi-li, MA Xiao-min, et al. Side effects of anti-tuberculosis drugs in 156 spinal tuberculosis patients [J]. J Third Mil Med Univ, 2009, 31(03):1932.

[5]张西峰,夏志敏,王岩,等. 微创方法提高病灶内药物浓度治疗脊柱结核的临床分析[J]. 第三军医大学学报, 2009, 31(20):1936.

ZHANG Xi-feng, XIA Zhi-min, WANG Yan, et al. Raising drug content in lesions by minimal invasive surgery to treat spinal tuberculosis: report of 210 cases[J]. J Third Mil Med Univ, 2009, 31(03):1936.

---

更新日期/Last Update: 2013-01-29