

论著

近交系小鼠牙胚同种异体移植至口腔黏膜下成牙能力的研究

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摘要:

目的: 观察近交系BALB/C小鼠牙胚移植至口腔黏膜下的成牙能力, 为组织工程化牙齿的培养寻找有利的体内环境。方法: 将出生后4d BALB/C小鼠的下颌第一磨牙牙胚植入BALB/C成年雄鼠的口腔黏膜下, 分别于植入后1, 2, 3, 6周取材, HE染色, 观察牙胚发育的形态学变化。结果: 牙胚在口腔黏膜下生长良好, 釉质和牙髓牙本质复合体继续发育, 牙本质小管结构清晰可见。结论: BALB/C小鼠牙胚移植至BALB/C成年雄鼠口腔黏膜下能够进一步发育矿化, 可为组织工程化牙齿的构建提供简便合适的发育环境。

关键词: 近交系小鼠 牙胚 移植 组织工程

Dentification ability of inbred strain mice tooth germs homologically transplanted into oral submucosa

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Abstract:

Objective To establish a suitable environment for the bioengineered teeth in vivo by observing the dentification ability of BALB/C mice tooth germs homologically implanted into the oral submucosa. Methods The first molar tooth germs of BALB/C mice 4 days after birth were transplanted into the oral submucosa of BALB/C male mice, and then recycled for regular histological observation after 1, 2, 3, and 6 week transplantation. Results The tooth germs in the oral submucosa grew well with continuing developing enamel and pulpodentinal complex, and the dentinal tubules were clear. Conclusion The environment of the BALB/C male mice oral submucosa is favorable for the growth of tooth germs in inbred strain BALB/C mice, and it can provide a new environment for the development of bioengineered teeth in vivo.

Keywords: inbred strain mice; tooth germ; transplant; tissue engineering

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