

·基础与临床研究·

口腔胶原膜对两种骨再生相关细胞的作用

康文亭¹ 周立伟² 钟梅玲¹ 朱勇军¹ 李丽花¹ 欧阳翔英³

(1. 深圳兰度生物材料有限公司, 广东省医用高分子植入材料工程技术研究中心,

深圳 518107; 2. 香港大学深圳医院口腔科, 深圳 518053;

3. 北京大学口腔医院牙周科, 北京 100081)

【摘要】目的 评价猪来源的脱细胞胶原膜在用于口腔引导骨再生时对成纤维细胞、成骨细胞的作用。**方法** 将成纤维细胞、成骨细胞分别接种在胶原膜表面, 培养一定时间后通过扫描电镜和荧光共聚焦显微镜分别观察两种细胞在胶原膜上的生长迁移特点。**结果** 成纤维细胞与成骨细胞在膜表面均能良好附着, 且生长状态良好。①将成纤维细胞接种在膜片的光滑面后, 细胞没有向膜内迁移, 仅沿膜表面生长; 而接种在膜片的粗糙面后, 细胞表现出向膜内部迁移的趋势。②将成骨细胞接种在膜片的粗糙面后, 细胞黏附在胶原纤维上, 形态舒展, 状态良好。**结论** 胶原膜的光滑面能够对成纤维细胞发挥有效的屏障作用, 同时成骨细胞能够在其粗糙面良好黏附。

【关键词】 胶原膜 成纤维细胞 屏障作用 成骨细胞 黏附作用

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Effects of oral collagen membrane on two kinds of bone regeneration related cells

Kang Wenting¹ Zhou Liwei² Zhong Meiling¹ Zhu Yongjun¹ Li Lihua¹ Ouyang Xiangying³

(1. Shenzhen Lando Biomaterials Co., Ltd, Guangdong research center of engineering and technology on Medical polymer implant materials, Shenzhen 518107; 2. Dental Clinic, The University of Hong Kong-Shenzhen Hospital, Shenzhen 518053; 3. Department of Periodontics, Peking University Hospital of Stomatology, Beijing 100081)

【Abstract】Objective The aim of this study was to evaluate the effects of porcine-derived decellular collagen membrane on fibroblasts and osteoblasts to guide bone regeneration. **Methods** Fibroblasts and osteoblasts were respectively inoculated on the surface of the collagen membrane, and after cultured for a certain period of time, the growth and migration characteristics of the two kinds of cells were observed by scanning electron microscope and fluorescence confocal microscope. **Results** Both fibroblasts and osteoblasts could attach well to the membrane and grow well. ① After the fibroblasts were inoculated on the smooth surface of the membrane, the fibroblasts did not migrate into the interior of the membrane, but only grew along the surface. In contrast, while inoculated on the rough surface, the cells showed a tendency to migrate to the interior of the membrane. ② After the osteoblasts were seeded on the rough surface of the membrane, the osteoblasts adhered to the collagen fibers, showing elongated cell morphology. **Conclusions** The smooth surface of the collagen membrane can play an effective role as a barrier to fibroblasts. At the same time, osteoblasts can attach well to the

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通信作者: 欧阳翔英, Email: kqouyangxy@bjmu.edu.cn