

羊富血小板胶细胞基质在 2 种牙周缺损模型中的修复效果

李 君¹ 梁刘凤¹ 钟雯怡² 刘 琪²

(1. 海口市人民医院, 海口 570100; 2. 遵义医学院, 遵义 563003)

【摘要】目的 探讨羊富血小板胶-牙周膜成纤维细胞基质 (PRgel-PDLFs) 促进不同原因造成的牙周缺损再生的效果。**方法** 用新鲜全血制取富血小板血浆 (PRP), 并加入催化剂与成纤维细胞一起培养合成 PRgel-PDLFs 基质; 然后将 24 只山羊随机分为急性牙周缺损组和慢性牙周炎缺损组, 模型建成后所有动物一侧植入 PRgel-PDLFs 基质于牙周缺损区, 另一侧为手术空白组, 术后 10 周, 进行 CT 影像学检查和组织学测量分析。**结果** 10 周后 CT 影像学和组织学检查显示: 两组均在牙根面见新生牙骨质样组织、牙周膜样组织和牙槽骨样组织, 且 PRgel-PDLFs 组再生的牙周组织明显多于空白组 ($P<0.01$); 急性缺损组和慢性牙周炎缺损组的组织再生量相近, 差异没有统计学意义 ($P>0.05$)。**结论** PRgel-PDLFs 基质能够促进牙周组织再生, 且对急性牙周缺损和慢性牙周炎造成的牙周缺损修复效果相近。

【关键词】 富血小板胶-牙周膜成纤维细胞基质 牙周组织再生 牙周缺损

DOI: 10.11752/j.kqcl.2016.04.08

Effects of goat platelet rich gel cell matrix on repairing two kinds of periodontal defect models

Li Jun¹ Liang Liufeng¹ Zhong Wenyi² Liu Qi²

(1. Hai Kou Municipal Hospital, Haikou 570100; 2. Zunyi Medical College, Zunyi 563003)

[Abstract] Objective To investigate the effects of goat platelet-rich gel-periodontal ligament fibroblast cell matrix (PRgel-PDLFs) on periodontal regeneration of various periodontal defects. **Methods** Platelet-rich plasma (PRP) was acquired from fresh blood using density gradient centrifugation technique. And then PRP and PDLFs was mixed cultured into PRP-gel. 24 healthy goats were randomly divided into acute periodontal defect group and chronic periodontal defect group; and one side of each model was treated with PRgel-PDLFs, the other side was used as blank control group. After 10 weeks, the defect area was examined by histological observation and CT analysis. **Results** New alveolar bone, cementum and periodontal ligament were observed on the root surfaces in both groups. Compare with the blank group, the extent of periodontal tissue regeneration was more prominent in the PRgel-PDLFs group, and there was obviously statistics significance ($P<0.01$). There was no obviously difference in periodontal tissue regeneration between acute periodontal defect group and chronic periodontal defect group ($P>0.05$). **Conclusion** PRgel-PDLFs could improve periodontal regeneration, and had similar effects on treating chronic periodontal defects and acute periodontal defects.

[Key words] Platelet-rich gel- periodontal ligament fibroblast cell matrix Periodontal regeneration Periodontal defects

据 WHO 对 35 个国家统计研究显示: 牙周

炎发病率为 40%~75%, 好发人群多为年龄 >35 岁, 且 >60 岁人群发病率最高^[1]。随着我国步入老龄化社会和诊疗意识的局限, 牙周病的患病率