

患者まで届いている

再生医療

脂肪組織由来多系統前駆の
自己細胞移植による歯周組織の再生

*Periodontal tissue regeneration by autologous
transplantation of ADMPC*

竹立 匡秀¹⁾ 村上 伸也²⁾

Masahide Takedachi¹⁾ / Shinya Murakami²⁾

¹⁾大阪大学歯学部附属病院口腔治療・歯周科

²⁾大阪大学大学院歯学研究科口腔分子免疫制御学講座歯周病分子病態学

Key words

歯周組織 / 脂肪組織由来多系統前駆細胞 / 自己移植

Summary

Periodontitis is an inflammatory disease caused by bacterial biofilms formed on the dental root surface. If left untreated, this disease can lead to irreversible destruction of the periodontal tissues and subsequent loss of the teeth. Although mechanically removing the dental biofilm shows some success in controlling the progress of periodontitis, it rarely regenerates periodontal tissues lost by periodontitis. Thus, various periodontal regeneration therapies have been introduced for periodontal tissue defects. However, these therapies have little ability to regenerate periodontal tissue in severe cases. To overcome this issue, cell-based therapies are currently under investigation as a promising approach for severe periodontal destruction. We isolated adipose tissue-derived multi-lineage progenitor cells (ADMPC) and examined the safety and efficacy of autologous transplantation of ADMPC for periodontal tissue regeneration in preclinical and clinical studies. This review introduces the results of these studies and discusses the clinical utility of ADMPC-based therapy for periodontal tissue regeneration.

はじめに

私たちの歯は、咀嚼機能に関わる第一の器官として重要であるのみならず、構音機能や調和のとれた顔貌

の維持にも深く関与しており、生涯にわたるQOLの維持・向上に必須の役割を担っている。これらの歯の機能は、2種類の硬組織(歯槽骨、セメント質)と2種類の軟組織(歯肉、歯根膜)から成る歯周組織によって

代表者 村上 伸也²⁾

E-mail : ipshinya@dent.osaka-u.ac.jp