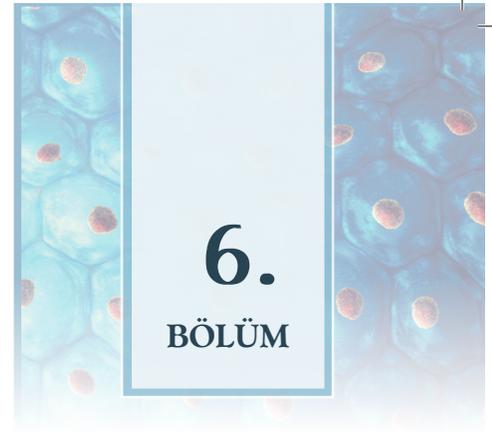


# Kök Hücre Kökenli Mikroveziküllerin Rejeneratif Tıpta Kullanımı



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## GİRİŞ

İlaçlar, genel olarak çeşitli hastalıkların tedavisinde kullanılan ve uzun vadede istenmeyen bazı yan etkiler ortaya koyan ve aynı zamanda terapötik etkinliklerini kaybetme gibi durumların ortaya çıktığı tedavi ajanlarıdır. Bu sebeplerle, birçok hastalığın tedavisi tıbbi araştırmalarda önemli bir zorluk olmaya devam etmektedir. Son yıllarda uygulamaya konulan ümit vaat edici tedavi stratejileri arasında mezenkimal kök hücre (MSC) kullanımı araştırmacılar tarafından büyük ilgi görmüştür. Kök hücreler, vücuttaki her hücre tipine farklılaşabilme kabiliyetine sahip, kendini yenileyebilen hücrelerdir. Kök hücreler, kan, kıkırdak, kemik dahil birçok farklı hücreye farklılaşabilirler, yaralanma sonucu vücutta tahrip olan dokuları onarabilirler. Mikroveziküller (MV'ler), hücreden hücreye iletişim ağının ayrılmaz bileşenleridir. Mikroveziküller, kök hücre temelli tedavide aşamalı olarak bir ilgi merkezi haline gelme yeteneğine sahiptir (1).

## 1. KÖK HÜCRELER

Farklılaşmamış karakterde olan kök hücreler genellikle kendi kendine çoğalma yeteneğine sahip ve belirli hücre dizilerine farklılaşabilen hücrelerdir. Kök hücreler, onları diğer hücre türlerinden ayıran iki önemli özelliğe sahiptir. İlki, yenilenme yetenekleridir; bu hücreler, sınırsız üreme yeteneğine sahip farklılaşmamış hücrelerdir. İkincisi ise, vücuttaki her türlü spesifik hücre tipine farklı-

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değişikliklerini analiz etmek için daha hassas teknikler kullanmak kritik öneme sahiptir. Gelişen yeni nesil teknolojilere bağlı olarak, ekstrasellüler veziküllerin rejeneratif tıp başta olmak üzere birçok hastalığın tanı ve tedavisinde araştırılmayı hak eden oldukça ilgi çekici ve potansiyeli yüksek nanobiyolojik yapılar olduğu düşünülmektedir (1,32).

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