

Romatoid Artrit Tedavisinde Nano Teknoloji

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GİRİŞ

Günümüzde nanoteknoloji hızla gelişmekte ve biyomedikal alanda kullanımı hızla artmaktadır. Son yıllarda romatoid artrit tedavisinde özellikle immunopatogeneze özgü hücreler ve sitokinlere yönelik immün tedavileri içeren biyolojik ilaçların kullanımı ile tedavide önemli gelişmeler elde edilse de ilaçların sistemler üzerinde seçici olmayan etkileri, fırsatçı enfeksiyonların gelişmesine yol açan immunsupresyon, kardiyak komplikasyonlar, gastrointestinal hasar ve ülserler, ilaçlarla ilişkili güvenlik ve etkinlik endişeleri, mevcut tedavilerin beklentileri tam karşılayamaması, nanoteknolojinin RA tedavisinde kullanımını gündeme getirmiştir (1).

ROMATOİD ARTRİT VE NANOTEKNOLOJİ TANIMI

ROMATOİD ARTRİT

Romatoid artrit (RA), sinoviyal eklemlerde kıkırdak ve kemik yıkımına bağlı eklemlerde bozulmaya ve beklenen yaşam süresinde azalmaya yol açan yaygın bir poliartiküler, otoimmün, inflamatuvar hastalıktır (2). Dünyada prevalansı % 0.5-1'dir (3). Patogenezi tam olarak açıklanamamıştır. Çevresel ve genetik faktörlerin hastalığa yatkınlığa katkıda bulunduğu bilinmektedir. Kadınlarda erkek-

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inflamasyonlu sinoviumda nekroz olurken sağlam doku bozulmamaktadır. ROS monitorizasyonu artritte erken tanı imkanı sağlamıştır. Multifonksiyonel nanopartiküller sinerjistik etki ile normal olmayan biyolojik dokunun görüntülenmesini ve tedavi etkinliğinin takibini sağlamaktadır. Nanoteknoloji gelecekte RA tanı ve tedavisinde umut vericidir.

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