

# Oftalmolojide Kök Hücre Uygulamaları

## 10. BÖLÜM

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### GİRİŞ

Son yıllarda oftalmologlar, yetişkin vücudundaki herhangi bir dokuda olduğu gibi oftalmik dokuların da rejenerasyonunun somatik kök hücreler (KH) ile mümkün olabileceğini düşünerek KH bilimine daha fazla odaklanmışlardır (1). Onarım ve yenileme kapasitesine sahip KH'ler, yeni hücre bazlı tedaviler için umut verici bir kaynak olmaya başlamıştır. Aslında, hematopoietik KH transplantasyonu hematolojik patolojiler için standart tedavide yerini almış olmasına rağmen, diğer bazı KH temelli müdahalelerin güvenliğini ve etkinliğini belirlemek için çeşitli KH türlerini kullanan çok sayıda klinik araştırma devam etmektedir (2). Göz, KH tabanlı transplantasyonun güvenliğini ve etkinliğini değerlendirmek için ideal bir bölgedir; bir hücresel terapinin uygulanmasını ve etkilerini doğrudan görselleştirmek mümkün olabilmektedir. Farklı germinal kökenli tabakalardan oluşan korneanın farklı katmanlarında çeşitli KH'lerin mevcut olduğu gösterilmiştir ve endojen KH'lerin dokuda homeostazı sürdürmede önemli rolleri bulunmaktadır (3). Örneğin, limbal kök hücre yetmezliği epitelyal dokunun yenilenememesine ve korneal saydamlığın kaybına yol açabilmektedir. Bununla birlikte, epitelyal, stromal veya endotelial alanda bulunan oküler KH'lerin yeterli sayıda ve hücre kaybına yol açmadan izole edilmesi zor olduğundan genellikle farklı somatik dokulardan elde edilen ve kültürde ekpanse edilen hazır KH'ler; glokom, yaşa bağlı maküla dejenerasyonu, fotoreseptör dejenerasyonu, kalıtsal retinopatiler ve iskemik retina lezyonları gibi kalıcı hücre kaybı ile karakterize göz bozukluklarının tedavisinde kullanılmaya başlanmıştır (4).

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## SONUÇ

Oküler rejeneratif tıbbın hızla gelişmesiyle birlikte, etkisiz ve güvensiz ürünlerin pazara ulaşmasını önlemek için uygun düzenlemelere ihtiyaç duyulmaktadır. Günlük oftalmoloji pratiğinin temelini oluşturan etik değerler, oküler KH terapisinde geçerli olmaya devam etmektedir. GMP standartlarına uygun titiz bir klinik araştırma süreci hastaya zarar vermeye mani olurken, ürünün pazarlanmasından önce gerekli kanıtları toplar ve inceler. Tedaviler mevcut olduğunda ise, kayıtlarla birlikte pazar sonrası gözetim gerekmektedir. Sonuç olarak oküler rejeneratif tıp, hızla gelişen, yüksek kaliteli önyargısız kanıtlar ve hasta sonuçlarının ticari çıkarılardan etkilenmemesini sağlamak için çok disiplinli çabalar gerektiren bir alandır.

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