

## BÖLÜM 10.2.6

# YARA İYİLEŞMESİNİ ETKİLEYEN FAKTÖRLER

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### GİRİŞ

Yara iyileşmesi, insan vücudunda normal bir biyolojik süreç olarak, birbiri ardınca devam eden ve birbirine entegre dört aşamada gerçekleştirilir: hemostaz, enflamasyon, proliferasyon ve yeniden yapılanma (HEPR) olmak üzere.

Bir yaranın başarılı bir şekilde iyileşmesi için bu dört fazın uygun sıra ve zaman çerçevesinde, belirli bir süre boyunca ve belirli yoğunlukta gerçekleşmesi gerekir (Şekil 1). Birçok faktör, bu sürecin bir veya daha fazla aşamasını engelleyebilir, bu sonuç karşımıza uygun olmayan ve/veya bozulmuş yara iyileşmesi olarak çıkabilir. Yara iyileşmesinde tartışılan faktörler arasında oksijenlenme, enfeksiyon, yaş ve cinsiyet hormonları, stres, diyabet, obezite, ilaçlar, alkolizm, sigara ve beslenme mevcut olup bu faktörler ile ilgili bir çok çalışma yara iyileşme sürecindeki bilinmeyenleri ortaya koymaktadır (1).

Tedavisi gecikmiş akut yaralar ve kronik yaralar dahil olmak üzere, bozulmuş iyileşme sergileyen tüm yara çeşitleri, bu dört faz olarak sınıflandırılan iyileşmenin aşamalarının birinde ve/veya birkaçında ilerlemede başarısız olmuş demektir. Kronik yaraların çoğu, iskemi, diabe-

tes mellitus, venöz staz hastalığı veya basınçla ilişkili ülserlerdir. İyileşmeyen yaralar, milyonlarca insanın ve birçok ülkenin tıbbi ve ekonomik sorunudur.

Sayısız bilimsel çalışma, hem normal hem de bozulmuş yara iyileşmesi, yavaş iyileşen yaraları etkileyen faktörleri anlamaya yönelik bilgilerimizi yeniden gözden geçirmemize neden olmuştur. Bu konuda hala öğrenilecek çok şey vardır.

### YARA İYİLEŞME SÜRECİ

Yara iyileşmesi, süreklilik gösteren, birbiri ile entegre programlanmış dört aşamadan oluşan dinamik bir süreçtir. Her aşamadaki olaylar kesin ve düzenli bir şekilde gerçekleşmelidir. Süreçlerdeki kesintiler, anormallikler veya uzama, yara iyileşmesinin gecikmesine veya iyileşmeyen kronik bir yaraya neden olabilir.

Yetişkin insanlarda optimal yara iyileşmesindeki dört faz (HEPR) aşağıdaki olayları içerir:

1. Hızlı hemostaz;
2. Uygun iltihaplanma;
3. Mezenkimal hücre farklılaşması, çoğalması ve yara bölgesine göç;

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demir gereklidir ve sonuç olarak şiddetli demir eksikliği kolajen üretimini bozulmasına neden olabilir (53, 55,65).

Yukarıda belirtildiği gibi, yaranın beslenme ihtiyaçları karmaşıktır, bu da kompozit beslenme desteğinin hem akut, hem de kronik yara iyileşmesine fayda sağlayacağını düşündürmektedir. (66).

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