

24. BÖLÜM

DİYABETİK AYAK HAYVAN MODELLERİ

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Diabetes mellitus pankreastan salgılanan insülin hormonunun azlığı, etkinin olmaması veya bu faktörlerin her ikisinin de bozukluğu nedeniyle oluşan ve kontrolsüz hiperglisemi ile seyreden karbonhidrat, yağ ve protein metabolizmasındaki değişikliklerle karakterize kronik bir metabolik hastalıktır (1, 2). Tüm dünyada olduğu gibi ülkemizde de önemli bir halk sağlığı sorunudur ve görülme sıklığı tüm dünyada giderek artmaktadır (3, 4).

Diyabet prevalansının artışına paralel olarak diyabetik ayak ülseri görülme sıklığı da artmaktadır. Nöropati ve periferik vaskülopati sonucu oluşan iskemi zemininde, aşırı basıncın ve enfeksiyonun da tabloya eklenmesiyle oluşan diyabetik ayak ülseri, diyabet hastalarında yaşam boyunca %12-25 arasında görülmektedir. Diyabetik ayak ülseri morbidite artışına, yaşam kalitesinde azalmaya, uzun hastane kalış sürelerine, yüksek tedavi maliyetlerine ve yüksek oranda alt ekstremitte amputasyonuna yol açmaktadır (5, 6).

Diyabetik ayak ülseri ile benzer patofizyolojiye sahip ve temelde doku iskemisinin ön planda olduğu venöz ülser, arteriyel ülser, bası ülseri ve operasyon sonrası gelişen insizyonel ülser gibi kronik yara ülselerinde, yara onarımının karmaşık hücresel ve biyokimyasal süreçlerini incelemek, potansiyel terapötik ajanların etkinliğini ve güvenilirliğini değerlendirmek için hayvan modelleri geliştirilmiştir. Bununla birlikte insandaki yara iyileşme süreçlerini içeren ve kısa-uzun dönem sonuçlarını ortaya koyabilen optimal prelinik modellerin eksikliği halen araştırmacılar için zorluk oluşturmaktadır. Ancak deneysel hayvan modellerinin tekrarlanabilir, kantitatif ve klinik kullanıma uyarlanabilir özellik-

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