Bölüm 9

İMMÜNOHİSTOLOJİ VE İMMÜNOPATOLOJİ

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İMMÜN SİSTEM TANIMI

Bağışıklık sistemi, dış ortamda bulunan bakteriler, virüsler, mantarlar ve parazitler dahil olmak üzere hastalığa yol açabilen ajanlardan ve diğer zararlı saldırılardan vücudu koruyan önemli bir savunma sistemidir. Bağışıklık sisteminden sorumlu hücreler ve proteinler, bağışıklık sistemini oluşturur ve yabancı organizmalara karşı düzenledikleri tepki, bağışıklık tepkisi olarak bilinir. Bu savunma sistemi, bağışıklık tepkisine göre iki genel işlevsel bölüme ayrılır; doğuştan gelen bağışıklık sistemi ve edinilmiş (spesifik veya adaptif) bağışıklık sistemi. Bu iki sistem, reaksiyon hızı, efektör hücre tipleri ve farklı patojenik organizma sınıflarının özgüllüğü bakımından farklılık gösterir. Doğuştan gelen bağışıklık sistemi, potansiyel olarak zararlı ajana spesifik olmayan anında bir yanıt verir ve yanıtı ezberleyemezken adaptif bağışıklık sistemi spesifik gecikmeli bir yanıt verir ve immünolojik hafızayı korur. Doğuştan gelen bağışıklık sistemi potansiyel olarak spesifik olmayan ancak bağışıklık sisteminin anında savunmasını sağlayan nötrofiller, monositler, makrofajlar, kompleman, sitokinler ve akut faz proteinleri kapsar. Doğuştan gelen tepki hızlıdır, ancak bazen normal dokulara zarar verir. Adaptif bağışıklık sistemi, spesifik, gecikmeli bir yanıt verir. Bu yanıt, T lenfositler ve B lenfositler yoluyla antijene özgü reaksiyonlardan oluşur ve immünolojik hafızayı korur. Doğuştan gelen bağı-

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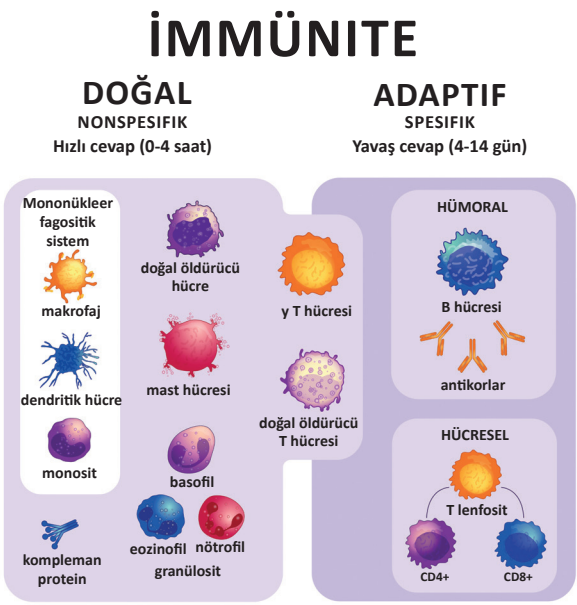

Şekil 3: Bağışıklık sistemi hücreleri

Sekonder İmmun Yetmezlikler

Sekonder immün yetmezlikler, bağışıklık sistemi hücrelerini etkileyen genetik kusurların neden olduğu, immün hücre sayımlarında ve fonksiyonundaki kayıplardır. Sekonder immün yetersizlikler, altta yatan heterojen hastalıklar veya immün baskılayıcı tedavinin bir sonucu olarak gelişir. Örneğin; enfeksiyöz ajanlar, ilaçlar, metabolik hastalıklar ve çevresel koşullar normal bir bağışıklık sistemini etkileyebilir. Bu bağışıklık eksiklikleri, komplikasyonları ve enfeksiyonların oluşması artan sıklığı ile kendini gösterir.

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