BÖLÜM 6

KARBAPENEMLERE DİRENÇ MEKANİZMALARI

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Giriş

Bakteriyel antimikrobiyal direnç (AMD) 21. yüzyılın önde gelen halk sağlığı tehditlerinden biridir. Doğrudan AMD'e bağlı ölümlerin sayısının 2019 yılında 1.27 milyon olduğu ve AMD ilişkili ölüm sayıları da eklendiğinde bu sayının 4.95 milyonu bulduğu rapor edilmiştir. Daha önce yapılan tahminler, AMD konusunda önlem alınmazsa, 2050 yılına kadar AMD kaynaklı ölümlerin yılda 10 milyonu bulacağını öngörmüştü. Artık bu sayıya düşündüğümüzden daha yakın olduğumuzu kesin olarak biliyoruz. Günümüzde, şiddetli enfeksiyonların ampirik tedavisinde ilk seçenek ilaçlara karşı gelişen direnç, AMD ilişkili ölümlerin %70'ini oluşturmaktadır (1). Artmış mortalite oranları yanında, AMD, hastanede yatış sürelerinin uzamasına, tedavi başarısızlığına, hastanelerde ve toplumda dirençli bakterilerin yayılmasına, enfeksiyonlarda artışa, ciddi emek ve ekonomik yüke sebep olmaktadır. Anlam ve öneminden dolayı, Dünya Sağlık Örgütü (DSÖ), Birleşmiş Milletler Gıda ve Tarım Örgütü, Dünya Hayvan Sağlığı Örgütü desteği ile, 2015'den bu yana, her yılın 18-24 Kasım haftası "Dünya Antimikrobiyal Farkındalık Haftası" olarak anılmaktadır.

Karbapenemler, bakterilerin hücre duvarı sentezini inhibe ederek etki gösteren β-laktam grubu antibiyotiklerin en geniş spektrumlu üyesi olup, antimikrobiyallerin en güvenilir son çare sınıfıdır. Özellikle Gram negatif bakterilerin sebep olduğu enfeksiyonlarda yüksek etkinliğe sahiptir. Bu sebep ile karbapenem kullanımı, geniş spektrumlu β-laktamaz (ESBL) üreten *Enterobacteriaceae* ve diğer üçüncü kuşak sefalosporine dirençli Gram negatif bakterilerin neden olduğu en-

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