BÖLÜM 1

ANTİBİYOTİK DİRENCİNDE GÜNCEL DURUM: EPİDEMİYOLOJİ VE RİSK FAKTÖRLERİ

Uzm. Dr. Müge AYHAN

Ankara Şehir Hastanesi
Enfeksiyon Hastalıkları ve Klinik Mikrobiyoloji Kliniği, Ankara

1.1.GİRİŞ

1940'lı yıllarda antibiyotiklerin keşfinden çok kısa süre sonra antibiyotik direnci tespit edilmeye başlanmıştır. Penisiline karşı direnç *Staphylococcus aureus* suşlarında penisilinlerin 1943 yılında yaygın üretimi ve kullanımından öncesinde tanımlanmıştır. Bu çalışma göstermiştir ki mikroorganizmalar intrensek olarak direnç geliştirmeye eğilimlidir. Ancak penisilinin keşfinden itibaren antibiyotiklerin kullanımıyla artan seçici baskı, doğal dirençli ve daha virülan bakterilerin seçilimini hızlandırmıştır. Antibiyotiklerin hem ziraatte, hem hayvancılıkta hem de insanlar tarafından uygunsuz kullanımı ile birlikte direnç sorunu giderek artmıştır (1). Antibiyotik direnci küresel bir toplum sağlığı tehdididir. Eğer acil bir şekilde gerekli müdahaleler gerçekleştirilmezse, 2050 yılında yılda 10 milyon hastanın antibiyotik direnci nedeni ile kaybedileceği bildirilmektedir (2). Yalnızca Avrupa'da yılda 25.000 ölüm antibiyotiklere direnç nedeniyle gerçekleşirken, sağlık harcaması ve üretkenlik kaybı nedeni ile yılda yaklaşık 1.5 milyar sterlin maliyet kaybına neden olmaktadır (3).

Antimikrobiyal direncin ekonomik ve sağlık sonlanım parametrelerini değerlendiren tek merkezli bir çalışmada 1400 hasta içeren %13.5 oranında antibiyotiğe dirençli enfeksiyon olan bir popülasyonda atfedilen tıbbi harcamaların duyarlılık analizinde hasta başına 18588 ile 29069 dolar arasında değişkenlik gösterdiğini bildirmişlerdir. Aynı çalışmada hastanede ek yatış günü süresi 6.4-12.7 gün olarak bulunmuş ve atfedilen mortalite %6.5 olarak izlenmiştir olup en düşük tahminle toplam maliyet 13.35 milyon dolar olarak değerlendirilmiştir (4). CDC Amerika'da her yıl en az 2.8 milyon kişinin antibiyotiklere dirençli etkenlerle enfekte olduğunu ve en az 35.000 kişinin bu enfeksiyonlar nedeniyle öldüğünü tahmin etmektedir (5).

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