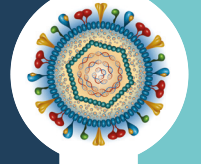


BÖLÜM 6

Filoviridae, Hepeviridae ve Orthomyxoviridae



Hakan AYDIN¹

FILOVIRIDAE GENEL BİLGİLER

Ebola viruslar (EBOV), genellikle insanlarda şiddetli hemorajik ateşlere neden olarak, yüksek ölüm oranlarıyla dikkat çekmektedir. Ancak, Fildişi Sahili ebolavirüsünün insanlardaki virulansı oldukça düşükken, Reston ebolavirüsü henüz insan hastalıklarıyla ilişkilendirilmemiştir. Çalışmalar, meyve yarasalarının EBOV'un doğal rezervuarı olduğunu doğrularken birkaç yaban hayatı türünün EBOV enfeksiyonuna duyarlı olduğu belirlenmiştir ve insan salgınları ile ilişkili olabileceği öne sürülmüştür. Ancak, evcil hayvanların rolü henüz net değildir ve bugüne kadar yalnızca sınırlı örneklemeye, evcil hayvanların Ebola Virüsü ile enfekte olup olamayacağını ve muhtemelen virus bulaşma döngüsüne katılıp katılamayacağını belirlemek amacıyla gerçekleştirilmiştir. Sığır, koyun, keçi, domuz ve köpek türünden yalnızca köpeklerin EBOV'a karşı antikorları olduğu bulunmuştur. Son zamanlarda, Reston-Ebola virüsünün domuzlardan izole edilmesi dikkatleri domuzlar üzerine çekmeyi başarmıştır.

EBOLA – DOMUZLARDAN RESTON EBOLAVİRÜS

Filoviridae ailesi; *Cuevavirus*, *Dianlovirus*, *Oblavirus*, *Orthoebolavirus*, *Orthomarburgvirus*, *Striavirus*, *Tapjovirus*, *Thamnovirus* olmak üzere 8 farklı genustan oluşmaktadır. *Orthoebolavirus* genusu içerisinde yer alan EBOV, zarflı, negatif polariteli RNA virüsleridir ve genellikle insanlarda şiddetli hemorajik ateşlere neden olarak, yüksek ölüm oranlarıyla dikkat çek-

mektedir (Şekil 6.1). Ebolavirus genomu yaklaşık 19 kb uzunluğundadır. Bu RNA genom dokuz protein kodlar, bunlar; nükleoprotein (NP), glikoprotein (GP), çözünür glikoprotein (sGP), küçük çözünür glikoprotein (ssGP), RNA'ya bağlı RNA polimeraz enzimi (L) ve VP24, VP30, VP35 ve VP40 yapısal proteinleridir (Şekil 6.2). Viral proteinlerin her biri farklı ebolavirus türleri arasında yüksek derecede varyasyon sergilemektedir. *Orthoebolavirus* genusu içerisinde Sudan ebolavirüsü, Zaire ebolavirüsü, Gambiense ebolavirüsü, Tai ebolavirüsü, Bundibugyo ebolavirüsü ve Reston ebolavirüsü (REBOV) dâhil olmak üzere altı tür yer almaktadır. Ancak REBOV Afrika dışında endemik olan (Filipinler ve Çin) tek ebolavirus türüdür. Genetik analizler, REBOV'un insanlarda ölümcül olan Sudan ebolavirüsüne çok yakın olduğunu ortaya koymaktadır, ancak özellikle VP24 ve VP35'teki aminoasit farklılıkları insan ilişkili adaptasyonu sınırlayan faktörlerdir. REBOV ile diğer Ebola virüsleri arasındaki amino asit dizisi farklılıkları, dokuz ebola virus proteininin hepsinde bulunur, ancak hiçbir kalıntı patojenite kazandırmak için yeterli görünmemektedir.

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