

# Bölüm 1

## SARS-CoV-2'NİN ÖZELLİKLERİ VE COVID-19

Sema ALAÇAM<sup>1</sup>

### GİRİŞ

Aralık 2019'da Çin'in Hubei eyaletinin Wuhan kentinde etiyojisi bilinmeyen bir grup pnömoni vakası tespit edildi ve Dünya Sağlık Örgütü'ne (DSÖ) bu salgın hakkında bilgi verildi. DSÖ, 7 Ocak 2020'de yeni bir koronavirüsü neden-ajan olarak ilan etti ve bu virüsün viral genom dizisi acil halk sağlığı desteği için virological.org aracılığıyla topluma online kaynak olarak açıklandı. Bunu 12 Ocak'ta "Global Initiative on Sharing All Influenza Data" (GISAID) aracılığıyla ABD'de dört genom dizisinin (viral dizi veri tabanı) açıklanması izledi. DSÖ, 11 Şubat 2020'de yeni koronavirüs kaynaklı pnömoniyi Koronavirüs Hastalığı 2019 (COVID-19) olarak adlandırdı. Aynı zamanda, Uluslararası Virüs Sınıflandırma Komisyonu (ICTV), geçici olarak bilinen 2019-nCoV'un, şiddetli akut solunum sendromu koronavirüs 2 (SARS-CoV-2) olarak adlandırıldığını duyurdu<sup>(1)</sup>. SARS-CoV-2 son derece bulaşıcı olduğundan tüm dünyaya hızla yayılarak olağandışı viral pnömoni salgınına neden oldu<sup>(2)</sup>. DSÖ, SARS-CoV-2'nin neden olduğu COVID-19'u Mart 2020'de global bir pandemi olarak ilan etti<sup>(3)</sup>.

SARS-CoV-2'nin ortaya çıkışı, insan popülasyonuna yayılan üçüncü yüksek derecede patojenik koronavirüsü işaret etmektedir. Yüksek morbidite ve mortalite oranına sahip bu yeni koronavirüsün neden olduğu COVID-19, son yüzyılda insanlığa yönelik en önemli tehditlerden biri olarak ortaya çıktı<sup>(4)</sup>. Zoonotik kökenli yüksek derecede patojenik koronavirüslerden olan SARS-CoV 2002'de ve Orta Doğu solunum sendromu koronavirüsü (MERS-CoV) ise 2012'de, insanlarda ölümcül solunum yolu hastalığına neden oldu. SARS-CoV ve MERS-CoV, sırasıyla %10 ve %35 ölüm oranları ile rapor edildi. Bu zoonotik virüslerden, SARS-CoV yarasalar ve misk kedileri, MERS-CoV tek hörgüçlü develer aracılığıyla diğer türlere yayıldı. Ancak SARS-CoV-2 için henüz belirli bir hayvan rezervuarı tanımlanamadı<sup>(5)</sup>.

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Pfizer-BioNTech COVID-19 aşısı BNT162b2'nin kullanımına yönelik geçici kılavuz, ilk olarak 8 Ocak 2021'de yayınlandı, 15 Haziran 2021'de güncellendi <sup>(96)</sup>.

## **SONUÇ**

Şu anda SARS-CoV-2 ile ilgili sınırlı bilgiye sahip olunması nedeniyle, COVID-19 tedavisi için onaylanmış herhangi bir tedavi edici ilaç veya aşı bulunmamaktadır. Küresel salgın kötüleşirken, etkili ve güvenli aşılar, antikörelara ve spesifik anti-SARS-CoV-2 ilaçlarına acilen ihtiyaç duyulmaktadır. Nötralle edici antiköreların SARS-CoV-2 enfeksiyonu için etkili olması bekleniyor, ancak maliyetleri, üretim ölçekleri ve kapsama oranları hala soru işaretidir. Aşı tasarımı ve geliştirme çalışmaları virüsün mutasyonları nedeniyle çeşitli zorluklarla karşı karşıyadır.

SARS-CoV-2'nin hızla yayılan küresel salgını, insan sağlığı, sosyal sağlık sistemi, küresel ekonomi ve hatta küresel yönetimi için şimdiden büyük bir tehdit oluşturmaktadır ve bu etkiler muhtemelen daha uzun bir süre devam edebilir. Erken uyarı yapabilmek için SARS-CoV-2'nin salgın mantığını öğrenmemiz ve doğada vahşi hayvanların taşıdığı bilinmeyen virüsleri araştırmamız gerekmektedir. SARS-CoV-2 dışında diğer virüs türlerinin neden olabileceği yeni salgınlar olabilir. Farklı virüslerle ilgili çalışma deneyimleri birbirine referans olabilir. Ayrıca, SARS-CoV'ler ve diğer koronavirüsler arasındaki yapısal ve yapısal olmayan proteinlerin farklılıkları hakkındaki veriler, SARS-CoV-2 enfeksiyonu için terapötiklerin geliştirilmesinde yardımcı olabilir.

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