

Bölüm 37



COVID-19'A HİSTOPATOLOJİK YAKLAŞIM

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GİRİŞ

Dünya Sağlık Örgütü (WHO)'nün 2020 yılının Şubat ayında COVID-19 olarak tanımladığı mevcut koronavirüs hastalığının etkeni, Beta-koronavirüs (β -CoV) ailesi üyesi şiddetli akut solunum sendromu koronavirüs-2 (SARS-CoV-2)'dir. İlk olarak 2019 yılının Aralık ayında Çin'e bağlı Wuhan şehrinde ortaya çıkmasıyla birlikte virüsün insanı enfekte etme durumu ve hastalık yetisinin yüksekliği binleri aşan sayıda insan yaşamının sonlanmasına sebep olmuştur ve 2020 yılının Mart ayında WHO tarafından pandemi olarak ilan edilmiştir(1,2). SARS-CoV-2, günümüze kadar insanlarda enfeksiyona neden olan yedinci koronavirüs ailesi üyesidir. Çin kaynaklı Şiddetli Akut Solunum Sendromu Koronavirüsü (SARS-CoV) ve Orta Doğu kaynaklı Orta Doğu Solunum Sendromu Koronavirüsü (MERS-CoV) yakın zamanda salgın oluşturan diğer koronavirüs ailesi üyeleridir. Her üç örnek hayvan kaynaklıdır ve insan yaşamını ciddi derecede etkileyebilecek hastalık oluşturma potansiyeline sahiptir (3,4). SARS-CoV-2, hayvanlar ve insanlar arasındaki etkileşimin sıklığı, insandan insana geçiş durumu ile ani ve ölümcül bir hastalık tablosu oluşturmaktadır(1,5,6). Klinik

belirtileri arasında ateş, halsizlik, öksürük, balgam, kaslarda yaygın ağrı ve nefes darlığı yer alır ve bulaştırıcılığının çok yüksek olması sebebiyle hastalığın erken teşhisi, tedavinin en önemli adımını oluşturmaktadır(6,7). Yakın zaman itibarıyla teşhis ve tedavisinde CRISPR tabanlı yöntemler kullanılmaktadır. Nükleik asit amplifikasyon testleri (NAAT), sekans analizleri, viral kültürler ve serolojik yöntemler ise tanıda kullanılan metodlar arasındadır. SARS-CoV-2, diğer hücrelere girmek için bir reseptör olarak olarak konakçı hücre transmembran karboksipeptidaz angiotensin converting enzim 2 (ACE2)'yi kullanır. Bu işlem, viral proteinin hücre girişi için tip II transmembran serin proteaz (TMPRSS2)'ye dayanır. Hedef hücrelerde hem ACE2 hem de TMPRSS2 ekspresyonunun viral enfeksiyon için önemli olduğu düşünülmektedir. SARS-CoV-2, çoğunlukla insanlarda hafif veya şiddetli solunum yolu hastalıkları ile ilişkilendirilmekle birlikte bulguları değişken klinik derecelerde görülebilmektedir (1,5,8-10). SARS-CoV-2'ye bağlı COVID-19, dünya çapındaki sağlık sistemleri için büyük bir zorluk teşkil etmekte ve ileri yaş, diyabet, hipertansiyon, kalp ve damar hastalıkları, immün yetmezlik, kronik akciğer hastalıkları, kanser, kronik böbrek hasta-

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topatolojik değişimleri daha iyi ifade edebilmek adına daha çok sayıda vaka üzerinde çalışılmasının literatüre büyük katkılar sağlayacağı düşünülmektedir.

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