

14. Bölüm

TORASİK MALİGNİTELİ OLGULARDA COVID-19 PNÖMONİSİ VE RADYOLOJİK AYIRICI TANI

Yıldız KILAR SÖZEL¹

GİRİŞ

Aralık 2019'da Çin'de kökeni bilinmeyen çok sayıda atipik pnömoni vakası tespit edildi. Aynı zamanda Wuhan'da açıklanan bu vakaların etyolojik etkeni olarak yeni bir koronavirüs alt tipi keşfedildi. Şiddetli akut solunum sendromu koronavirüs 2 (SARS-COV-2) olarak adlandırılan bu yeni mikroorganizma, muazzam bir virülansa ve yüksek insandan insana bulaşma kapasitesine sahipti. (1,2) SARS-CoV-2, yüksek virülansı sayesinde dünya çapında yayılmayı başardı ve içinde bulunduğumuz benzeri görülmemiş salgını yarattı. Salgın hastaların yanında mücadele eden sağlık çalışanlarını da olumsuz etkiledi.(3) Yeni koronavirüs insandan insana bulaşma kapasitesi yüksek olmasına rağmen, daha önce izole edilmiş diğer koronavirüslerden daha düşük bir ölüm oranına sahipti.(4) Bununla birlikte, virüs ciddi bilateral pnömonilere neden oldu ve yaygın inflamatuvar yanıtlar geliştirme yeteneğine sahipti.(5)

Kanser hastaları COVID-19 enfeksiyonu açısından yüksek risk altındadır. Bu hastalar Onkoloji bölümlerinde takiplerini sürdürmek,onkolojik patolojilerinden kaynaklanan komplikasyonları önlemek için teşhis ve tedavilerini almaya devam etmelidirler.(6) Bazı raporlarda, kanser hastalarında ve sadece akciğer kanseri tanısı olan hastalarda ziyaretlerin ve tedavilerin planlanmasında risk-fayda değerlendirilmesi, mümkün olduğunca az ziyaret yapmaya çalışılması önerilmiştir.(7,8) Yu J. tarafından Çin'de yapılan bir çalışmada, küçük hücreli

¹ Uzm. Dr. Yıldız KILAR SÖZEL, Antalya Eğitim ve Araştırma Hastanesi Radyoloji Bölümü, yidiz_kilar@hotmail.com

debilmekte, akciğer kanserine yönelik tanı ve tedavi sürecinde aksamaya neden olabilmektedir.

KAYNAKLAR

1. Wang C, Horby P, Hayden FG, et al. A novel coronavirus outbreak of global health concern. *Lancet* 2020;395:470–473.
2. Li Q, Guan X, Wu P, et al. Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus–Infected Pneumonia. *N Engl J Med*. 2020;382:1199–1207.
3. Bişkin Çetin S, Sözel H. Death Anxiety Levels of Healthcare Professionals in the COVID-19 Period. *Eskisehir Med J*. 2021;2(2):74–81.
4. Yin Y, Wunderink RG. MERS, SARS and other coronaviruses as causes of pneumonia. *Respirology*. 2018 Feb;23(2):130–137.
5. Conti P, Ronconi G, Caraffa A, et al. Induction of pro-inflammatory cytokines (IL-1 and IL-6) and lung inflammation by Coronavirus-19 (COVI-19 or SARS-CoV-2): anti-inflammatory strategies. *J Biol Regul Homeost Agents*. 2020 March–April;34(2):327–331.
6. Cortiula F, Pettke A, Bartoletti M, et al. Managing COVID-19 in the oncology clinic and avoiding the distraction effect. *Ann Oncol*. 2020 May;31(5):553–555.
7. Sidaway P. COVID-19 and cancer: what we know so far. *Nat Rev Clin Oncol*. 2020 Jun;17(6):336.
8. Banna G, Curioni-Fontecedro A, Friedlaender, et al. How we treat patients with lung cancer during the SARS-CoV-2 pandemic: primum non nocere. *ESMO Open* 2020;5:e000765.
9. Yu J, Ouyang W, Chua MLK, et al. SARS-CoV-2 Transmission in Patients With Cancer at a Tertiary Care Hospital in Wuhan, China. *JAMA Oncol*. 2020 Jul 1;6(7):1108–1110.
10. Liang W, Guan W, Chen R et al. Cancer patients in SARS-CoV-2 infection: a nationwide analysis in China. *Lancet Oncol*. 2020;21(3),335–7.
11. Zhang L, Zhu F, Xie L, et al. Clinical characteristics of COVID-19-infected cancer patients: a retrospective case study in three hospitals within Wuhan, China. *Ann Oncol*. 2020; doi:10.1016/j.annonc.2020.03.296)
12. Wei W, Jiang H, Chen W, et al. How should we implement radiotherapy for cancer patients in China during the endemic period of COVID-19? *Radiother Oncol*. 2020 Jun;147:100–102.
13. Park SE. Epidemiology, virology, and clinical features of severe acute respiratory syndrome - coronavirus-2 (SARS-CoV-2; Coronavirus Disease-19). *Clin Exp Pediatr*. 2020;63:119–124.
14. Gorbalenya, A.E., Baker SC et al. Coronaviridae Study Group of the International Committee on Taxonomy of Viruses. *Nat Microbiol*. 2020; ;5:536–544.
15. Xu Y, Liu H, Hu K, et al. Clinical Guideline: Clinical recommendations on lung cancer management during COVID-19 pandemic. *Thoracic Cancer* 2020; 11:2067–74.
16. Dai M, Liu D, Liu M, et al. Patients with Cancer Appear More Vulnerable to SARS-CoV-2: A Multicenter Study during the COVID-19 Outbreak. *Cancer Discov*. 2020 Jun;10(6):783–791.
17. Dai M, Liu D, Liu M, et al. Patients with cancer appear more vulnerable to SARS-COV-2: A multi-center study during the COVID-19 outbreak. *Cancer Discov* 2020; 10:783–91.
18. Horn L, Whisenant JG, Torri V, et al. Thoracic Cancers International COVID-19 Collaboration (TERAVOLT): Impact of type of cancer therapy and COVID therapy on survival (abstract). *J Clin Oncol* 38:2020 (suppl; abstr LBA111).
19. Calabro L, Peters S, Soria JC, et al: Challenges in lung cancer therapy during the COVID-19 pandemic [epub ahead of print on April 9, 2020]. *Lancet Respir Med* ‘ doi:10.1016/ S2213-2600(20)30170-3)
20. Akinosoglou KS, Karkoluias K, Marangos M. Infectious complications in patients with lung cancer. *Eur Rev Med Pharmacol Sci* 2013; 17:8–18.
21. Passaro A, Peters S, Mok TSK, et al. Testing for COVID-19 in lung cancer patients. *Ann Oncol* 2020; 31:832–4.

22. Guo H, Chen X, Su C, et al. Challenges and countermeasures of thoracic oncology in the epidemic of COVID-19. *Transl Lung Cancer Res* 2020; 9:337-47.
23. Koo HJ, Lim S, Choe J, et al. Radiographic and CT Features of Viral Pneumonia. *Radiographics*. 2018;38(3): 719- 39.
24. Ishiguro T, Takayanagi N, Kanauchi T, et al. Clinical and Radiographic Comparison of Influenza Virus-associated Pneumonia among Three Viral Subtypes. *Intern med*. 2016;55(7): 731-7.
25. Ufuk F, Savaş R. Chest CT features of the novel coronavirus disease (COVID-19). *Turk j med Sci*. 2020; 10.3906/sag-2004-331. [published online]
26. Güneşli S, Atçeken Z, Doğan H, et al. Radiological approach to COVID-19 pneumonia with an emphasis on chest CT. *Diagn Interv Radiol*. 2020; 10.5152/dir.2020.20260. [published online]
27. Vilar J, Domingo ML, Soto C, et al. Radiology of bacterial pneumonia. *Eur j Radiol*. 2004;51(2):102-13.
28. Sverzellati N, Lynch DA, Hansell DM, et al. American Thoracic Society-European Respiratory Society Classification of the Idiopathic Interstitial Pneumonias: Advances in Knowledge since 2002. *Radiographics*. 2015; 35(7):1849-71.
29. Ikeda M, Tanaka H, Sadamatsu K. Diffuse alveolar hemorrhage as a complication of dual antiplatelet therapy for acute coronary syndrome. *Cardiovasc Revasc med*. 2011;12(6): 407-11.
30. Kaya F, Ufuk F, Karabulut N. Diagnostic performance of contrast-enhanced and unenhanced combined pulmonary artery MRI and magnetic resonance venography techniques in the diagnosis of venous thromboembolism. *Br j Radiol*. 2019;92(1095):20180695.
31. Ufuk F. Radiological approach to COVID-19 pneumonia: Attention should be paid to pulmonary embolism and radiation exposure. *Diagn Interv Radiol*. 2020; 10.5152 /dir.2020.20311. [published online]
32. Kocak Z, Evans ES, Zhou SM, et al. Challenges in defining radiation pneumonitis in patients with lung cancer. *Int J Radiat Oncol Biol Phys*. 2005 Jul 1;62(3):635-8.
33. Welker L, Jörres RA, Costabel U, et al. Predictive value of BAL cell differentials in the diagnosis of interstitial lung diseases. *Eur Respir J*. 2004 Dec;24(6):1000-6.
34. Bledsoe TJ, Nath SK, et al. Radiation pneumonitis. *Clin Chest Med* 2017; 38:201-8.
35. Zhao F, Yan SX, Wang GF, et al. CT features of focal organizing pneumonia: an analysis of consecutive histopathologically confirmed 45 cases. *Eur j Radiol*. 2014;83(1):73-8.
36. Wu J, Pan J, Teng D, et al. Interpretation of CT signs of 2019 novel coronavirus (COVID-19) pneumonia. *Eur Radiol*. 2020; 1-8. [published online]
37. Nambu A, Araki T, Ozawa K, et al. Bronchiolitis obliterans organizing pneumonia after tangential beam irradiation to the breast: discrimination from radiation pneumonitis. *Radiat Med*. 2002 May-Jun;20(3):151-4.
38. Naidoo J, Wang X, Woo KM, et al. Pneumonitis in Patients Treated With Anti-Programmed Death-1/Programmed Death Ligand 1 Therapy. *J Clin Oncol*. 2017 Mar;35(7):709-717.
39. Wang H, Guo X, Zhou J, et al. Clinical diagnosis and treatment of immune checkpoint inhibitor-associated pneumonitis. *Thoracic Cancer* 2020;11:191-7.
40. DeKruyff RH, Fang Y, Umetsu DT. IL-4-based helper activity of CD4+ T cells is radiation sensitive. *Cell Immunol*. 1995 Feb;160(2):248-56
41. Schweitzer VG, Juillard GJ, Bajada CL, et al. Radiation recall dermatitis and pneumonitis in a patient treated with paclitaxel. *Cancer*. 1995 Sep 15;76(6):1069-72.
42. Matsumoto Y, Kawaguchi T, Yamamoto N, et al. Interstitial Lung Disease Induced by Osimertinib for Epidermal Growth Factor Receptor (EGFR) T790M-positive Non-small Cell Lung Cancer. *Intern Med* 2017; 56:2325-8.
43. Klastersky JA. Adverse events of targeted therapies. *Curr Opin Oncol* 2014; 26:395-402.
44. Ding X, Ji W, Li J, et al. Radiation recall pneumonitis induced by chemotherapy after thoracic radiotherapy for lung cancer. *Radiat Oncol*. 2011;6(1):1-6.

45. Johkoh T, Lee KS, Nishino M, et al. Chest CT diagnosis and clinical management of drug-related pneumonitis in patients receiving molecular targeting agents and immune checkpoint inhibitors: A position paper from the fleischner society. *Radiology*. 2021;298(3):550–66.
46. Ogawara D, Fukuda M, Ueno S, et al. Drug fever after cancer chemotherapy is most commonly observed on posttreatment days 3 and 4. *Support Care Cancer* 2016; 24:615-9.
47. Zell JA, Chang JC. Neoplastic fever: a neglected paraneoplastic syndrome. *Support Care Cancer* 2005;13:870-7.