Bölüm
36

MALİGN PLEVRAL MEZOTELYOMA EPİDEMİYOLOJİSİ

Hayriye ŞAHİNLİ[1]

GİRİŞ

Malign mezotelyoma plevra, periton, perikard veya tunika vaginalisin mezotelyal yüzeylerinden kaynaklanan, kötü seyirli bir tümördür. Tüm olguların yaklaşık %90'nını malign plevral mezotelyoma oluşturmaktadır (1, 2). Malign plevral mezotelyoma, tüm dünyada insidansı giderek artan en ölümcül kanserlerden birisidir (3). Klinikte en sık izlenen semptomlar, masif ve orta derecedeki efüzyona bağlı nefes darlığı ve göğüs duvarı invazyonu nedeniyle olan göğüs ağrısıdır (4). Hastaların çoğu ileri evrede tanı alır ve sağkalımları bir yıldan daha azdır (5).

RİSK FAKTÖRLERİ

Asbest teması: Malign plevral mezotelyoma gelişmesinde en önemli risk faktörü asbest maruziyetidir (6). Olguların %70-90'nında asbest teması olduğu bildirilmektedir (7, 8). Aslında, asbestin yaygın olarak ticari kullanımından önce, hastalığın görülme sıklığı seyrekti (9, 10).

Asbestin, serpentine ve amphiboles olarak iki ana tipi vardır. Serpentinenin tek tipi olan chrysotile, kıvrımlı liflerden oluşur ve beyaz asbest olarak adlandırılır. Dünya çapında kullanılan tüm asbestlerin de %95'ini oluşturur (11). Amphibole grubu ise amosite (kahverengi asbest), crocidolite (mavi asbest), tremolite ve anthophyliteden oluşur.

Asbestin, yüksek karsinojenik potansiyele sahip olduğuna dair ilk kanıtlar 1960 yıllarının başında İngiltere ve Güney Afrika'da bulunmuştur(12).

Dünya sağlık örgütü (WHO), tüm asbest türlerinin insanlarda kansere neden olduğu sonucuna varmak için kanıtları yeterli görmüştür. Nitekim Hodgson ve

[1] Medikal onkoloji, Ankara Dışkapı Yıldırım Beyazıt E.A.H. e mail:dr.hayriye@hotmail.com

vaş yavaş azalması, 2050' den sonra genel insidansa yaklaşarak, önemli bir sorun olmaktan çıkması beklenmektedir. Kısacası günümüzde mezotelyoma global bir sağlık sorunu olmaya devam etmektedir.

Anahtar kelimeler: Asbestos, epidemiyoloji, malign mezotelyoma

KAYNAKLAR

1. Leigh J, Davidson P, Hendrie L, et al. Malignant mesothelioma in Australia, 1945-2000. Am J Ind Med. 2002;41(3):188-201.
2. Price B, Ware A. Time trend of mesothelioma incidence in the United States and projection of future cases: an update based on SEER data for 1973 through 2005. Crit Rev Toxicol. 2009;39(7):576-88.
3. Roe OD, Stella GM. Malignant pleural mesothelioma: history, controversy and future of a man-made epidemic. Eur Respir Rev. 2015;24(135):115-31.
4. Geltner C, Errhalt P, Baumgartner B, et al. Management of malignant pleural mesothelioma - part 1: epidemiology, diagnosis, and staging : Consensus of the Austrian Mesothelioma Interest Group (AMIG). Wien Klin Wochenschr. 2016;128(17-18):611-7.
5. Milano MT, Zhang H. Malignant pleural mesothelioma: a population-based study of survival. J Thorac Oncol. 2010;5(11):1841-8.
6. Offermans NS, Vermeulen R, Burdorf A, et al. Occupational asbestos exposure and risk of pleural mesothelioma, lung cancer, and laryngeal cancer in the prospective Netherlands cohort study. J Occup Environ Med. 2014;56(1):6-19.
7. Powers A, Carbone M. The role of environmental carcinogens, viruses and genetic predisposition in the pathogenesis of mesothelioma. Cancer Biol Ther. 2002;1(4):348-53.
8. Metintas M, Ozdemir N, Hillerdal G, et al. Environmental asbestos exposure and malignant pleural mesothelioma. Respir Med. 1999;93(5):349-55.
9. Strauchen JA. Rarity of malignant mesothelioma prior to the widespread commercial introduction of asbestos: the Mount Sinai autopsy experience 1883-1910. Am J Ind Med. 2011;54(6):467-9.
10. Mark EJ, Yokoi T. Absence of evidence for a significant background incidence of diffuse malignant mesothelioma apart from asbestos exposure. Ann N Y Acad Sci. 1991;643:196-204.
11. Robinson BM. Malignant pleural mesothelioma: an epidemiological perspective. Ann Cardiothorac Surg. 2012;1(4):491-6.
12. Wagner JC, Sleggs CA, Marchand P. Diffuse pleural mesothelioma and asbestos exposure in the North Western Cape Province. Br J Ind Med. 1960;17:260-71.
13. Hodgson JT, Darnton A. The quantitative risks of mesothelioma and lung cancer in relation to asbestos exposure. Ann Occup Hyg. 2000;44(8):565-601.
14. Isik R, Metintas M, Gibbs AR, et al. p53, p21 and metallothionein immunoreactivities in patients with malignant pleural mesothelioma: correlations with the epidemiological features and prognosis of mesotheliomas with environmental asbestos exposure. Respir Med. 2001;95(7):588-93.
15. Senyigit A, Babayigit C, Gokirmak M, et al. Incidence of malignant pleural mesothelioma due to environmental asbestos fiber exposure in the southeast of Turkey. Respiration. 2000;67(6):610-4.
16. Selcuk ZT, Coplu L, Emri S, et al. Malignant pleural mesothelioma due to environmental mineral fiber exposure in Turkey. Analysis of 135 cases. Chest. 1992;102(3):790-6.
17. Kameda T, Takahashi K, Kim R, et al. Asbestos: use, bans and disease burden in Europe. Bull World Health Organ. 2014;92(11):790-7.
18. Hillerdal G. Mesothelioma: cases associated with non-occupational and low dose exposures. Occup Environ Med. 1999;56(8):505-13.
19. Bianchi C, Bianchi T. Malignant mesothelioma: global incidence and relationship with asbestos. Ind Health. 2007;45(3):379-87.

20. Hyland RA, Ware S, Johnson AR, et al. Incidence trends and gender differences in malignant mesothelioma in New South Wales, Australia. Scand J Work Environ Health. 2007;33(4):286-92.
21. Marinaccio A, Binazzi A, Cauzillo G, et al. Analysis of latency time and its determinants in asbestos related malignant mesothelioma cases of the Italian register. Eur J Cancer. 2007;43(18):2722-8.
22. Boutin C, Schlesser M, Frenay C, et al. Malignant pleural mesothelioma. Eur Respir J. 1998;12(4):972-81.
23. Nishimura SL, Broaddus VC. Asbestos-induced pleural disease. Clin Chest Med. 1998;19(2):311-29.
24. Hilliard AK, Lovett JK, McGavin CR. The rise and fall in incidence of malignant mesothelioma from a British Naval Dockyard, 1979-1999. Occup Med (Lond). 2003;53(3):209-12.
25. Metintas M, Hillerdal G, Metintas S, et al. Endemic malignant mesothelioma: exposure to erionite is more important than genetic factors. Arch Environ Occup Health. 2010;65(2):86-93.
26. Baris I, Simonato L, Artvinli M, et al. Epidemiological and environmental evidence of the health effects of exposure to erionite fibres: a four-year study in the Cappadocian region of Turkey. Int J Cancer. 1987;39(1):10-7.
27. Baris YI, Sahin AA, Ozesmi M, et al. An outbreak of pleural mesothelioma and chronic fibrosing pleurisy in the village of Karain/Urgup in Anatolia. Thorax. 1978;33(2):181-92.
28. Tward JD, Wendland MM, Shrieve DC, et al. The risk of secondary malignancies over 30 years after the treatment of non-Hodgkin lymphoma. Cancer. 2006;107(1):108-15.
29. Travis LB, Fossa SD, Schonfeld SJ, et al. Second cancers among 40,576 testicular cancer patients: focus on long-term survivors. J Natl Cancer Inst. 2005;97(18):1354-65.
30. Cicala C, Pompetti F, Carbone M. SV40 induces mesotheliomas in hamsters. Am J Pathol. 1993;142(5):1524-33.
31. Robinson BW, Musk AW, Lake RA. Malignant mesothelioma. Lancet. 2005;366(9483):397-408.
32. Peto J, Hodgson JT, Matthews FE, Jones JR. Continuing increase in mesothelioma mortality in Britain. Lancet. 1995;345(8949):535-9.
33. Gaafar RM, Eldin NH. Epidemic of mesothelioma in Egypt. Lung Cancer. 2005;49 Suppl 1:S17-20.
34. Takahashi K, Karjalainen A. A cross-country comparative overview of the asbestos situation in ten Asian countries. Int J Occup Environ Health. 2003;9(3):244-8.
35. Bianchi C, Bianchi T. Global mesothelioma epidemic: Trend and features. Indian J Occup Environ Med. 2014;18(2):82-8.
36. Teta MJ, Mink PJ, Lau E, et al. US mesothelioma patterns 1973-2002: indicators of change and insights into background rates. Eur J Cancer Prev. 2008;17(6):525-34.
37. Price B. Analysis of current trends in United States mesothelioma incidence. Am J Epidemiol. 1997;145(3):211-8.
38. Rahman NM, Ali NJ, Brown G, et al. Local anaesthetic thoracoscopy: British Thoracic Society Pleural Disease Guideline 2010. Thorax. 2010;65 Suppl 2:ii54-60.
39. Luo S, Liu X, Mu S, et al. Asbestos related diseases from environmental exposure to crocidolite in Da-yao, China. I. Review of exposure and epidemiological data. Occup Environ Med. 2003;60(1):35-41; discussion -2.
40. Joshi TK, Bhuva UB, Katoch P. Asbestos ban in India: challenges ahead. Ann N Y Acad Sci. 2006;1076:292-308.
41. Light RW. Tumor of the pleura In: Murray JF, Nadel JA, editors. Textbook of respiratory medicine1994. p. 2222-30.
42. Hillerdal G. Pleural plaques and risk for bronchial carcinoma and mesothelioma. A prospective study. Chest. 1994;105(1):144-50.
43. Berry G, Reid A, Aboagye-Sarfo P, et al. Malignant mesotheliomas in former miners and millers of crocidolite at Wittenoom (Western Australia) after more than 50 years follow-up. Br J Cancer. 2012;106(5):1016-20.
44. Robinson BW, Lake RA. Advances in malignant mesothelioma. N Engl J Med. 2005;353(15):1591-603.
45. Mirabelli D, Cavone D, Merler E, et al. Non-occupational exposure to asbestos and malignant mesothelioma in the Italian National Registry of Mesotheliomas. Occup Environ Med. 2010;67(11):792-4.

46. Metintas S, Metintas M, Ucgun I, et al. Malignant mesothelioma due to environmental exposure to asbestos: follow-up of a Turkish cohort living in a rural area. Chest. 2002;122(6):2224-9.
47. Baumann F, Maurizot P, Mangeas M, et al. Pleural mesothelioma in New Caledonia: associations with environmental risk factors. Environ Health Perspect. 2011;119(5):695-700.
48. Fidaner C, Eser SY, Parkin DM. Incidence in Izmir in 1993-1994: first results from Izmir Cancer Registry. Eur J Cancer. 2001;37(1):83-92.