Bölüm 5

HODGKİN LENFOMA

Sinem NAMDAROĞLU1

GİRİŞ

Hodgkin Lenfoma (HL) ilk defa 1832 yılında Sir Thomas Hodgkin tarafından tanımlanan,genç erişkinlerde sık görülen, çoğunlukla supradiyafragmatik lenf nodlarından (LN) başlayan lenfoid dokunun malign bir hastalığıdır. HL günümüzde mevcut tedavi yöntemleri ile %80'lerin üzerinde kür elde edilebilen bir hastalıktır.

EPİDEMİYOLOJİ

Hodgkin Lenfoma (HL) insidansı yaklaşık 2-3/100.000/yıldır .Tüm lenfomaların yaklaşık olarak %10'nunu ve tüm kanser vakalarının yaklaşık %0,6'sını oluşturmaktadır.

Amerika, Kanada ve Avrupa'da her yıl yaklaşık olarak 20.000 yeni HL vakası teşhis edilmektedir. Bunların da yaklaşık 6.000-7.000'i erken evre Hodgkin lenfomadır.Ülkemizde bu konuyla alakalı yapılmış bir çalışma yoktur.

Gelişmiş ülkelerde bimodal yaş dağılımı gösterir, birinci pik genç erişkinlik döneminde (yaklaşık 20'li yaşlar) diğer pik ise daha ileri yaşlarda(yaklaşık 60'lı yaşlar) görülmektedir.Gelişmekte olan ülkelerde ise HL'nın görülme sıklığı azalır, çocuklukta ve ikinci dekadda iki pik tanımlanmıştır.

Histolojik alt tiplerin görülme sıklığı ve dağılımı , coğrafi lokalizasyona ve ekonomik gelişmişlik durumuna göre değişkenlik gösterir. Gelişmekte olan ülkelerde, prognozu kötü olan histopatolojik tipler ve ileri evre olgular daha sık görülmektedir. Gelişmiş ülkelerde Nodüler Sklerozan(NS) HL sık görülürken gelişmekte olan ülkelerde ise Mikst sellüler (MS) HL daha sık görülmektedir.

Hodgkin lenfoma tüm yaş gruplarında erkeklerde kadınlara göre daha sık görülmekle birlikte nodüler sklerozan (NS) tip kadınlarda daha sık görülür. Yaş gruplarına göre histolojik alt tiplerin görülme sıklığı değişmektedir. Genç erişkinlerde Nodüler sklerozan tip, pediatrik ve ileri yaşta mikst sellüler (MS) tip daha sık görülmektedir.

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KAYNAKLAR

1. Aleman, B. M., Raemaekers, J. M., Tirelli, U., Bortolus, R., van't Veer, M. B., Lybeert, M. L., & Tomšič, R. (2003). Involved-field radiotherapy for advanced Hodgkin's lymphoma. New England Journal of Medicine, 348(24), 2396-2406.
2. Anderson, J. E., Litzow, M. R., Appelbaum, F. R., Schoch, G., Fisher, L. D., Buckner, C. D., ... & Sanders, J. E. (1993). Allogeneic, syngeneic, and autologous marrow transplantation for Hodgkin's disease: the 21-year Seattle experience. Journal of Clinical Oncology, 11(12), 2342-2350..
3. Bartlett, N. L., Rosenberg, S. A., Hoppe, R. T., Hancock, S. L., & Horning, S. J. (1995). Brief chemotherapy, Stanford V, and adjuvant radiotherapy for bulky or advanced-stage Hodgkin's disease: a preliminary report. Journal of Clinical Oncology, 13(5), 1080-1088.
4. Bonadonna, G., Bonfante, V., Viviani, S., Di Russo, A., Villani, F., & Valagussa, P. (2004). ABVD plus subtotal nodal versus involved-field radiotherapy in early-stage Hodgkin's disease: long-term results. Journal of Clinical Oncology, 22(14), 2835-2841.
5. Bonadonna, G., Zucali, R., Monfardini, S., de Lena, M., & Uslenghi, C. (1975). Combination chemotherapy of Hodgkin's disease with adriamycin, bleomycin, vinblastine, and imidazole carboxamide versus MOPP. Cancer, 36(1), 252-259.
6. Borchmann, P., Haverkamp, H., Diehl, V., Cerny, T., Markova, J., Ho, A. D., & Rank, A. (2011). Eight cycles of escalated-dose BEACOPP compared with four cycles of escalated-dose BEACOPP followed by four cycles of baseline-dose BEACOPP with or without radiotherapy in patients with advanced-stage Hodgkin's lymphoma: final analysis of the HD12 trial of the German Hodgkin Study Group. Journal of Clinical Oncology, 29(32), 4234-4242.
7. Carbone, P. P., Kaplan, H. S., Musshoff, K., Smithers, D. W., & Tubiana, M. (1971). Report of the committee on Hodgkin's disease staging classification. Cancer res, 31(11), 1860-1861.
8. Castillo, J. J., Dalia, S., & Shum, H. (2011). Meta-analysis of the association between cigarette smoking and incidence of Hodgkin's Lymphoma. Journal of Clinical Oncology, 29(29), 3900-3906.
9. Cheson, B. D., Ansell, S., Schwartz, L., Gordon, L. I., Advani, R., Jacene, H. A., & Armand, P. (2016). Refinement of the Lugano Classification lymphoma response criteria in the era of immunomodulatory therapy. Blood, 128(21), 2489-2496.
10. Connors, J. M. (2005). State-of-the-art therapeutics: Hodgkin's lymphoma. Journal of clinical oncology, 23(26), 6400-6408.
11. Correa, P., & O'Conor, G. T. (1971). Epidemiologic patterns of Hodgkin's disease. International journal of cancer, 8(2), 192-201.
12. Correa, P., & O'Conor, G. T. (1973). Geographic pathology of lymphoreticular tumors: summary of survey from the geographic pathology committee of the international union against cancer. Journal of the National Cancer Institute, 50(6), 1609-1617.
13. Diehl, V., Sextro, M., Franklin, J., Hansmann, M. L., Harris, N., Jaffe, E. & Marafioti, T. (1999). Clinical presentation, course, and prognostic factors in lymphocyte-predominant Hodgkin's disease and lymphocyte-rich classical Hodgkin's disease: report from the European Task Force on Lymphoma Project on Lymphocyte-Predominant Hodgkin's Disease. Journal of Clinical Oncology, 17(3), 776.
14. Diehl, V., Sieber, M., Rüffer, U., Lathan, B., Hasenclever, D., Pfreundschuh, M., &

Tesch, H. (1997). BEACOPP: An intensified chemotherapy regimen in advanced Hodgkin's disease. Annals of Oncology, 8(2), 143-148.
15. Diehl, V., Stein, H., Hummel, M., Zollinger, R., & Connors, J. M. (2003). Hodgkin's lymphoma: biology and treatment strategies for primary, refractory, and relapsed disease. ASH Education Program Book, 2003(1), 225-247.
16. Dühmke, E., Franklin, J., Pfreundschuh, M., Sehlen, S., Willich, N., Rühl, U., & Lathan, B. (2001). Low-dose radiation is sufficient for the noninvolved extended-field treatment in favorable early-stage Hodgkin's disease: long-term results of a randomized trial of radiotherapy alone. Journal of clinical oncology, 19(11), 2905-2914.
17. Engert, A., Franklin, J., Eich, H. T., Brillant, C., Sehlen, S., Cartoni, C., & Franke, A. (2007). Two cycles of doxorubicin, bleomycin, vinblastine, and dacarbazine plus extended-field radiotherapy is superior to radiotherapy alone in early favorable Hodgkin's lymphoma: final results of the GHSG HD7 trial. Journal of Clinical Oncology, 25(23), 3495-3502.
18. Engert, A., Haverkamp, H., Kobe, C., Markova, J., Renner, C., Ho, A., & Kanz, L. (2012). Reduced-intensity chemotherapy and PET-guided radiotherapy in patients with advanced stage Hodgkin's lymphoma (HD15 trial): a randomised, open-label, phase 3 non-inferiority trial. The Lancet, 379(9828), 1791-1799.
19. Engert, A., Plütschow, A., Eich, H. T., Lohri, A., Dörken, B., Borchmann, P., & Debus, J. (2010). Reduced treatment intensity in patients with early-stage Hodgkin's lymphoma. New England Journal of Medicine, 363(7), 640-652.
20. Evens, A. M., & Kostakoglu, L. (2014). The role of FDG-PET in defining prognosis of Hodgkin lymphoma for early-stage disease. Blood, 124(23), 3356-3364.
21. Fermé, C., Eghbali, H., & Meerwaldt, J. H. (2007). Treatment of early stages Hodgkin disease: the EORTC–GELA H8 trials. N Engl J Med, 357, 1916-1927.
22. Fuchs, M., Diehl, V., & Re, D. (2006). Current strategies and new approaches in the treatment of Hodgkin's lymphoma. Pathobiology, 73(3), 126-140.
23. Garnier, J. L., Lebranchu, Y., Dantal, J., Bedrossian, J., Cahen, R., Assouline, D., & Delsol, G. (1996). Hodgkin's Disease After Transplantation1. Transplantation, 61(1), 71-76.
24. Gobbi, P. G., Cavalli, C., Gendarini, A., Crema, A., Ricevuti, G., Federico, M., & Ascari, E. (1985). Reevaluation of prognostic significance of symptoms in Hodgkin's disease. Cancer, 56(12), 2874-2880.
25. Gustavsson, A., Osterman, B., & Cavallin-Ståhl, E. (2003). A systematic overview of radiation therapy effects in Hodgkin's lymphoma. Acta Oncologica, 42(5-6), 589-604.
26. Johnson, P., & McKenzie, H. (2015). How I treat advanced classical Hodgkin lymphoma. Blood, blood-2014.
27. Landgren, O., Engels, E. A., Pfeiffer, R. M., Gridley, G., Mellemkjaer, L., Olsen, J. H., . & Goldin, L. R. (2006). Autoimmunity and susceptibility to Hodgkin lymphoma: a population-based case–control study in Scandinavia. Journal of the National Cancer Institute, 98(18), 1321-1330.
28. Levine, A. M. (1996). HIV-associated Hodgkin's disease: biologic and clinical aspects. Hematology/oncology clinics of North America, 10(5), 1135-1148.
29. Meyer, R. M., Gospodarowicz, M. K., Connors, J. M., Pearcey, R. G., Wells, W. A., Winter, J. N., & Crump, M. (2012). ABVD alone versus radiation-based therapy in limited-stage Hodgkin's lymphoma. New England Journal of Medicine, 366(5), 399-408.

30. Naumann, R., Vaic, A., Beuthien-Baumann, B., Bredow, J., Kropp, J., Kittner, T., & Ehninger, G. (2001). Prognostic value of positron emission tomography in the evaluation of post-treatment residual mass in patients with Hodgkin's disease and non-Hodgkin's lymphoma. British journal of haematology, 115(4), 793-800.
31. Noordijk, E. M., Carde, P., Dupouy, N., Hagenbeek, A., Krol, A. D., Kluin-Nelemans, J. C., & Aleman, B. M. (2006). Combined-modality therapy for clinical stage I or II Hodgkin's lymphoma: long-term results of the European Organisation for Research and Treatment of Cancer H7 randomized controlled trials. Journal of Clinical Oncology, 24(19), 3128-3135.
32. Press, O. W., LeBlanc, M., Lichter, A. S., Grogan, T. M., Unger, J. M., Wasserman, T. H., ... & Fisher, R. I. (2001). Phase III randomized intergroup trial of subtotal lymphoid irradiation versus doxorubicin, vinblastine, and subtotal lymphoid irradiation for stage IA to IIA Hodgkin's disease. Journal of Clinical Oncology, 19(22), 4238-4244.
33. Santoro, A., Bonadonna, G., Valagussa, P., Zucali, R., Viviani, S., Villani, F., & Crippa, F. (1987). Long-term results of combined chemotherapy-radiotherapy approach in Hodgkin's disease: superiority of ABVD plus radiotherapy versus MOPP plus radiotherapy. J Clin Oncol, 5(1), 27-37.
34. Sureda, A., Bader, P., Cesaro, S., Dreger, P., Duarte, R. F., Dufour, C., & Lanza, F. (2015). Indications for allo-and auto-SCT for haematological diseases, solid tumours and immune disorders: current practice in Europe, 2015. Bone marrow transplantation, 50(8), 1037.-1056
35. Swerdlow, S. H. (2008). WHO classification of tumours of haematopoietic and lymphoid tissues. WHO classification of tumours, 22008, 439.Swerdlow SH, Campo E, Harris NL, et al. (Eds). World Health Organization Classification of Tumours of Haematopoietic and Lymphoid Tissues, IARC Press, Lyon 2008.
36. Tinguely, M., Vonlanthen, R., Müller, E., Dommann-Scherrer, C. C., Schneider, J., Laissue, J. A., & Borisch, B. (1998). Hodgkin's disease-like lymphoproliferative disorders in patients with different underlying immunodeficiency states. Modern pathology: an official journal of the United States and Canadian Academy of Pathology, Inc, 11(4), 307-312.
37. Townsend, W., & Linch, D. (2012). Hodgkin's lymphoma in adults. The Lancet, 380(9844), 836-847.
38. Von Tresckow, B., Plutschow, A., Fuchs, M., Klimm, B., Markova, J., Lohri, A., & Zijlstra, J. M. (2012). Dose-intensification in early unfavorable Hodgkin's lymphoma: final analysis of the German Hodgkin Study Group HD14 trial. J Clin Oncol, 30(9), 907-913.