BÖLÜM 13

İNFLAMATUAR MEME KANSERİ

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GİRİŞ

Kadınlarda en sık görülen kanser türü meme kanseridir. Meme kanserinin bir çok alt tipi vardır. Bunlardan biri olan inflamatuar meme kanseri (İMK); bütün meme kanseri vakalarının yaklaşık %1-5'ini oluşturan, lokal olarak ilerlemiş agresif bir alt tiptir. Hastalık genellikle mastit tablosuna benzer şekilde kızarıklık, şişlik ve ısı artışı ile kendini gösterir. Tanı yaşı 55-59 arasındadır. Kadınlar, Afro-Amerikalılar, yüksek vücut kitle indeksi ve siyah ten rengine sahip olanlar daha yüksek riske sahiptir. Genellikle hormon reseptör ekspresyonundan yoksun ve insan epidermal büyüme faktörü reseptörü 2 amplifikasyonuna sahip bir tümördür. Rezeksiyona uygun tümörlerde tedavinin temelini; 'trimodal tedavi' olarak bilinen neoadjuvan kemoterapi, cerrahi ve adjuvan radyoterapi oluşturmaktadır. Rezeke edilemeyen İMK hastalarında ise genel olarak İMK olmayan hastaların tedavisine benzer bir tedavi yaklaşımı uygulanır. Hastalar; hastalığın biyolojik olarak farklı olması, daha nadir görülmesi, doğası gereği daha agresif seyretmesi ve genel sağkalım oranlarının daha düşük olması nedeniyle içinde tıbbi onkolog, cerrah, patolog, radyolog ve radyasyon onkoloğunun bulunduğu multidisipliner bir yaklaşımla değerlendirilmelidir.

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örneklemesi pek önerilmez (37). SLNB yerine aksiller diseksiyon önerilmektedir (38). Bu hasta grubunda dermal lenfatikler de kanser hücreleri tarafından tutuluduğu için meme başı, areola ve deri koruyucu mastektomi de kontrendikedir (39). Mastektomiden sonra hastalara RT tedavisi önerilmektedir (40). Neoadjuvan tedaviden sonra ameliyat edilebilir düzeyde bir tümör küçülmesi elde edilmemişse hastalara ikinci ve üçüncü sıra kemoterapi ajanları olarak karboplatin, vinorelbin ve kapesitabin verilebilir. Ek olarak rezeke edilemez durumdaki tümöral kitlelere ameliyattan önce RT de verilebilir. İMK'lı hastaların mastektomi sonrası RT ihtiyacı olduğundan, meme rekonstrüksiyonunun RT tedavisi sonrasına ertelenmesi tercih edilir. Erken bir rekonstrüksiyon operasyonu ile opere edilen meme bölgesine interne edilen prostetik materyaller RT'nin uygulama alanını sınırlayarak iç meme lenf düğümlerinin RT uygulama kapsamının dışında kalmasına neden olabilir. Bunun için de mümkünse RT tedavisi tamamlandıktan sonra memeye yönelik rekonstrüksiyon operasyonu yapılmalıdır (41). Metastatik İMK hastalarındaki tedavi yaklaşımı genel olarak İMK olmayan hasta grubu ile aynıdır. Metastatik İMK tanılı hastalarda sistemik tedavilerle genel sağkalım oranlarında anlamlı iyileşmeler elde edilse de İMK olmayan metastatik evredeki hasta grubuna göre daha kötü sağkalım oranına sahiptir (42). Seçilecek tedavi ajanı, hem tümör biyolojisine hem de hastanın klinik durumuna bağlı olup hastaların çoğu kemoterapi, hedefli tedavi, endokrin tedavi, biyolojik ve destekleyici bakım tedavilerini almaktadırlar (43).

PROGNOZ

İMK, özellikle kötü prognoz ve erken nüks riski ile ilişkili bir tümördür. HER2 negatif olması, tanı konulduğu dönemde dört ya da daha fazla lenf nodu tutulumunun olması veya neoadjuvan kemoterapiye yanıt vermemesi kötü prognoz ile ilişkili parametrelerdir (44-47). Günümüzde uygun multimodalite tedavi yaklaşımlarıyla geçmişe göre iyileşme sağlanmış olsa da genel sağkalım oranları İMK olmayan hastalara göre hala daha çok düşüktür (48-52).

KAYNAKLAR

1. Kalli S, Semine A, Cohen S, et al. American Joint Committee on Cancer's Staging System for Breast Cancer, Eighth Edition: What the Radiologist Needs to Know. *Radiographics : a review publication of the Radiological Society of North America, Inc.* 2018;38(7):1921-1933.doi.10.1148/rg.2018180056
2. Dawood S. Biology and management of inflammatory breast cancer. *Expert review of anticancer therapy.* 2010;10(2):209-220.doi.10.1586/era.09.90
3. Chainitikun S, Saleem S, Lim B, et al. Update on systemic treatment for newly diagnosed inflammatory breast cancer. *Journal of advanced research.* 2021;29:1-12.doi.10.1016/j.jare.2020.08.014

4. Abraham HG, Xia Y, Mukherjee B, et al. Incidence and survival of inflammatory breast cancer between 1973 and 2015 in the SEER database. *Breast cancer research and treatment.* 2021;185(1):229-238.doi.10.1007/s10549-020-05938-2
5. Hance KW, Anderson WF, Devesa SS, et al. Trends in inflammatory breast carcinoma incidence and survival: the surveillance, epidemiology, and end results program at the National Cancer Institute. *Journal of the National Cancer Institute.* 2005;97(13):966-975.doi.10.1093/jnci/dji172
6. Goldner B, Behrendt CE, Schoellhammer HF, et al. Incidence of inflammatory breast cancer in women, 1992-2009, United States. *Annals of surgical oncology.* 2014;21(4):1267-1270. doi.10.1245/s10434-013-3439-y
7. Boussen H, Bouzaiene H, Ben Hassouna J, et al. Inflammatory breast cancer in Tunisia: reassessment of incidence and clinicopathological features. *Seminars in oncology.* 2008;35(1):17-24. doi.10.1053/j.seminoncol.2007.11.017
8. Levine PH, Veneroso C. The epidemiology of inflammatory breast cancer. *Seminars in oncology.* 2008;35(1):11-16.doi.10.1053/j.seminoncol.2007.11.018
9. Soliman AS, Schairer C. Considerations in setting up and conducting epidemiologic studies of cancer in middle- and low-income countries: the experience of a case-control study of inflammatory breast cancer in North Africa in the past 10 years. *Cancer medicine.* 2012;1(3):338-349. doi.10.1002/cam4.36
10. Robertson FM, Bondy M, Yang W, et al. Inflammatory breast cancer: the disease, the biology, the treatment. *CA: a cancer journal for clinicians.* 2010;60(6):351-375.doi.10.3322/caac.20082
11. Chippa V, Barazi H. Inflammatory Breast Cancer. StatPearls. Treasure Island (FL) 2022.
12. Dahlbeck SW, Donnelly JF, Theriault RL. Differentiating inflammatory breast cancer from acute mastitis. *American family physician.* 1995;52(3):929-934
13. Blackmon MM, Nguyen H, Mukherji P. Acute Mastitis. StatPearls. Treasure Island (FL) 2022.
14. Le-Petross HT, Balema W, Woodward WA. Why diagnosing inflammatory breast cancer is hard and how to overcome the challenges: a narrative review. *Chinese clinical oncology.* 2021;10(6):58. doi.10.21037/cco-21-116
15. Le-Petross HT, Cristofanilli M, Carkaci S, et al. MRI features of inflammatory breast cancer. *AJR American journal of roentgenology.* 2011;197(4):W769-776.doi.10.2214/AJR.10.6157
16. Dawood S, Merajver SD, Viens P, et al. International expert panel on inflammatory breast cancer: consensus statement for standardized diagnosis and treatment. *Annals of oncology : official journal of the European Society for Medical Oncology.* 2011;22(3):515-523.doi.10.1093/annonc/mdq345
17. Patel MM, Le-Petross HT. Baseline FDG PET-CT imaging is necessary for newly diagnosed inflammatory breast cancer patients: a narrative review. *Chinese clinical oncology.* 2021;10(6):56. doi.10.21037/cco-21-82
18. Tanaka H, Hosono M, Kawabata K, et al. FDG-Avid Tracheal Mass and Cartilage Involvements in ANCA-Negative Granulomatosis With Polyangiitis. *Clinical nuclear medicine.* 2022;47(1):83-85.doi.10.1097/RLU.0000000000003848
19. Chow CK. Imaging in inflammatory breast carcinoma. *Breast disease.* 2005;22:45-54. doi.10.3233/bd-2006-22106
20. Calin MA, Elfarra FG, Parasca SV. Object-oriented classification approach for bone metastasis mapping from whole-body bone scintigraphy. *Physica medica : PM : an international journal devoted to the applications of physics to medicine and biology : official journal of the Italian Association of Biomedical Physics.* 2021;84:141-148.doi.10.1016/j.ejmp.2021.03.040
21. Pope WB. Brain metastases: neuroimaging. *Handbook of clinical neurology.* 2018;149:89-112. doi.10.1016/B978-0-12-811161-1.00007-4
22. Rueth NM, Lin HY, Bedrosian I, et al. Underuse of trimodality treatment affects survival for patients with inflammatory breast cancer: an analysis of treatment and survival trends from the National Cancer Database. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology.* 2014;32(19):2018-2024.doi.10.1200/JCO.2014.55.1978

23. Baldini E, Gardin G, Evagelista G, et al. Long-term results of combined-modality therapy for inflammatory breast carcinoma. *Clinical breast cancer.* 2004;5(5):358-363.doi.10.3816/cbc.2004.n.042
24. Ueno NT, Buzdar AU, Singletary SE, et al. Combined-modality treatment of inflammatory breast carcinoma: twenty years of experience at M. D. Anderson Cancer Center. *Cancer chemotherapy and pharmacology.* 1997;40(4):321-329.doi.10.1007/s002800050664
25. Harris EE, Schultz D, Bertsch H, et al. Ten-year outcome after combined modality therapy for inflammatory breast cancer. *International journal of radiation oncology, biology, physics.* 2003;55(5):1200-1208.doi.10.1016/s0360-3016(02)04201-3
26. Adesoye T, Lucci A. Current Surgical Management of Inflammatory Breast Cancer. *Annals of surgical oncology.* 2021;28(10):5461-5467.doi.10.1245/s10434-021-10522-z
27. Cristofanilli M, Gonzalez-Angulo AM, Buzdar AU, et al. Paclitaxel improves the prognosis in estrogen receptor negative inflammatory breast cancer: the M. D. Anderson Cancer Center experience. *Clinical breast cancer.* 2004;4(6):415-419.doi.10.3816/cbc.2004.n.004
28. Dano D, Lardy-Cleaud A, Monneur A, et al. Metastatic inflammatory breast cancer: survival outcomes and prognostic factors in the national, multicentric, and real-life French cohort (ESME). *ESMO open.* 2021;6(4):100220.doi.10.1016/j.esmoop.2021.100220
29. Gianni L, Pienkowski T, Im YH, et al. Efficacy and safety of neoadjuvant pertuzumab and trastuzumab in women with locally advanced, inflammatory, or early HER2-positive breast cancer (NeoSphere): a randomised multicentre, open-label, phase 2 trial. *The Lancet Oncology.* 2012;13(1):25-32.doi.10.1016/S1470-2045(11)70336-9
30. Baselga J, Cortes J, Kim SB, et al. Pertuzumab plus trastuzumab plus docetaxel for metastatic breast cancer. *The New England journal of medicine.* 2012;366(2):109-119.doi.10.1056/NEJMoa1113216
31. Li J, Xia Y, Wu Q, et al. Outcomes of patients with inflammatory breast cancer by hormone receptor- and HER2-defined molecular subtypes: A population-based study from the SEER program. *Oncotarget.* 2017;8(30):49370-49379.doi.10.18632/oncotarget.17217
32. Zell JA, Tsang WY, Taylor TH, et al. Prognostic impact of human epidermal growth factor-like receptor 2 and hormone receptor status in inflammatory breast cancer (IBC): analysis of 2,014 IBC patient cases from the California Cancer Registry. *Breast cancer research : BCR.* 2009;11(1):R9.doi.10.1186/bcr2225
33. Curcio LD, Rupp E, Williams WL, et al. Beyond palliative mastectomy in inflammatory breast cancer--a reassessment of margin status. *Annals of surgical oncology.* 1999;6(3):249-254.doi.10.1007/s10434-999-0249-3
34. Perez CA, Fields JN, Fracasso PM, et al. Management of locally advanced carcinoma of the breast. II. Inflammatory carcinoma. *Cancer.* 1994;74(1 Suppl):466-476.doi.10.1002/cncr.2820741336
35. Panades M, Olivotto IA, Speers CH, et al. Evolving treatment strategies for inflammatory breast cancer: a population-based survival analysis. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology.* 2005;23(9):1941-1950.doi.10.1200/JCO.2005.06.233
36. Brun B, Otmezguine Y, Feuilhade F, et al. Treatment of inflammatory breast cancer with combination chemotherapy and mastectomy versus breast conservation. *Cancer.* 1988;61(6):1096-1103.doi.10.1002/1097-0142(19880315)61:6<1096::aid-cncr2820610608>3.0.co;2-y
37. Lyman GH, Giuliano AE, Somerfield MR, et al. American Society of Clinical Oncology guideline recommendations for sentinel lymph node biopsy in early-stage breast cancer. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology.* 2005;23(30):7703-7720.doi.10.1200/JCO.2005.08.001
38. Stearns V, Ewing CA, Slack R, et al. Sentinel lymphadenectomy after neoadjuvant chemotherapy for breast cancer may reliably represent the axilla except for inflammatory breast cancer. *Annals of surgical oncology.* 2002;9(3):235-242.doi.10.1007/BF02573060
39. Kaidar-Person O, Poortmans P, Offersen BV, et al. Spatial location of local recurrences after mastectomy: a systematic review. *Breast cancer research and treatment.* 2020;183(2):263-273.doi.10.1007/s10549-020-05774-4

40. Liao Z, Strom EA, Buzdar AU, et al. Locoregional irradiation for inflammatory breast cancer: effectiveness of dose escalation in decreasing recurrence. *International journal of radiation oncology, biology, physics.* 2000;47(5):1191-1200.doi.10.1016/s0360-3016(00)00561-7
41. Motwani SB, Strom EA, Schechter NR, et al. The impact of immediate breast reconstruction on the technical delivery of postmastectomy radiotherapy. *International journal of radiation oncology, biology, physics.* 2006;66(1):76-82.doi.10.1016/j.ijrobp.2006.03.040
42. Fouad TM, Kogawa T, Liu DD, et al. Overall survival differences between patients with inflammatory and noninflammatory breast cancer presenting with distant metastasis at diagnosis. *Breast cancer research and treatment.* 2015;152(2):407-416.doi.10.1007/s10549-015-3436-x
43. Beslija S, Bonneterre J, Burstein HJ, et al. Third consensus on medical treatment of metastatic breast cancer. *Annals of oncology : official journal of the European Society for Medical Oncology.* 2009;20(11):1771-1785.doi.10.1093/annonc/mdp261
44 Liu J, Chen K, Jiang W, et al. Chemotherapy response and survival of inflammatory breast cancer by hormone receptor- and HER2-defined molecular subtypes approximation: an analysis from the National Cancer Database. *Journal of cancer research and clinical oncology.* 2017;143(1):161-168.doi.10.1007/s00432-016-2281-6
45. Li J, Gonzalez-Angulo AM, Allen PK, et al. Triple-negative subtype predicts poor overall survival and high locoregional relapse in inflammatory breast cancer. *The oncologist.* 2011;16(12):1675-1683.doi.10.1634/theoncologist.2011-0196
46. Hennessy BT, Gonzalez-Angulo AM, Hortobagyi GN, et al. Disease-free and overall survival after pathologic complete disease remission of cytologically proven inflammatory breast carcinoma axillary lymph node metastases after primary systemic chemotherapy. *Cancer.* 2006;106(5):1000-1006.doi.10.1002/cncr.21726
47. Hieken TJ, Murphy BL, Boughey JC, et al. Influence of Biologic Subtype of Inflammatory Breast Cancer on Response to Neoadjuvant Therapy and Cancer Outcomes. *Clinical breast cancer.* 2018;18(4):e501-e506.doi.10.1016/j.clbc.2017.10.003
48. Dawood S, Lei X, Dent R, et al. Survival of women with inflammatory breast cancer: a large population-based study. *Annals of oncology : official journal of the European Society for Medical Oncology.* 2014;25(6):1143-1151.doi.10.1093/annonc/mdu121
49. van Uden DJ, Bretveld R, Siesling S, et al. Inflammatory breast cancer in the Netherlands; improved survival over the last decades. *Breast cancer research and treatment.* 2017;162(2):365-374.doi.10.1007/s10549-017-4119-6
50. Gonzalez-Angulo AM, Hennessy BT, Broglio K, et al. Trends for inflammatory breast cancer: is survival improving? *The oncologist.* 2007;12(8):904-912.doi.10.1634/theoncologist.12-8-904
51. Menta A, Fouad TM, Lucci A, et al. Inflammatory Breast Cancer: What to Know About This Unique, Aggressive Breast Cancer. *The Surgical clinics of North America.* 2018;98(4):787-800. doi.10.1016/j.suc.2018.03.009
52. Biswas T, Efird JT, Prasad S, et al. Inflammatory TNBC Breast Cancer: Demography and Clinical Outcome in a Large Cohort of Patients With TNBC. *Clinical breast cancer.* 2016;16(3):212-216.doi.10.1016/j.clbc.2016.02.004