

GEBELİKTE MULTİPLE MYELOMA YÖNETİMİ

50. BÖLÜM

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GİRİŞ

Günümüzde, her 1000 gebeliğin ortalama bir tanesi kanser ile komplike bir hale gelmektedir. Gebelikte en sık görülen kanserler sırasıyla meme, melanom, serviks kanseri ve takiben hematolojik kanserlerdir (1). İlk gebe myelomlu vaka 1965 yılında sunulmuştur (2). Hematolojik kanserler içinde myelom ileri yaşta görülen bir malignite olması nedeniyle gebelerde nadir görülen bir kanser olup tanı, tedavi ve takibinde vaka serisi şeklinde bilgilerle elde edilmiş derlemeler ile güçlendirilmiş öneriler mevcuttur.

MULTİPLE MYELOM EPİDEMİYOLOJİSİ

Multiple myeloma (MM) hematolojik kanserler içinde Hodgkin dışı lenfomalar ve lösemilerden sonra üçüncü sıklıkta tespit edilir. Malignite ilişkili ölümlerde 17. Sırada olup hastalık erkeklerde kadınlara göre daha sık görülür (3). Hastalık için ortalama tanı yaşı 66-70 olup % 37 hasta 65 yaş altında, % 0,02 hasta 30 yaş altında tanı almaktadır (4). Yaş ve cinsiyet dağılımı nedeniyle MM gebelik sırasında nadir görülen kanserlerdendir. Gebelikte myelom tanısı almış kadınların değerlendirildiği bir vaka serisinde ortalama yaş 34 olarak bulunmuştur (5). Kadınlarda gebe kalma yaşının artması nedeniyle son yıllarda daha sık rapor edilmektedir (6). Normal popülasyonla uyumlu şekilde gebelerde Afro-Amerikan kökenli kişilerde Asya ırkına göre daha sık görülür (7). MM hastalarında 5 yıllık sağkalım %25 iken gebelikten hemen önce, gebelik sırasında veya hemen sonra MM tanısı alanlarda 5 yıllık sağkalım %45 olarak gösterilmiş olup bu analizlerde yayın, seçim yanlılıkları olabileceği göz önünde bulundurulmalıdır (7).

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tedir. Bildiriler ışığında gebelerin mortalite ve morbiditeleri diğer hastalardan farklı değildir. Doğum sonrası ideal MM tedavisi hemen başlanmalıdır.

KAYNAKÇA

1. Peccatori FA, Azim Jr H, Orecchia R, et al. Cancer, pregnancy and fertility: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. 2013;24 (suppl-6) :vi60-vi70.
2. Giordano C. Multiple myeloma and pregnancy. *Maternidade e infancia; arquivos medicos-sociais*. 1965;24(2):158-84.
3. WHO. Globocan 2020. IARC. (27/12/2020 tarihinde <https://gco.iarc.fr/today/data/factsheets/cancers/35-Multiple-myeloma-fact-sheet.pdf> (iarc.fr) adresinden ulaşılmıştır).
4. Kazandjian D, editor Multiple myeloma epidemiology and survival: A unique malignancy. *Seminars in oncology*; 2016: Elsevier.
5. Cabañas-Perianes V, Macizo M, Salido E, et al. Management multiple myeloma during pregnancy: a case report and review. *Hematological oncology*. 2016;34(2):108-14.
6. Lavi N, Horowitz NA, Brenner B. An update on the management of hematologic malignancies in pregnancy. *Women's health (London, England)*. 2014;10(3):255-66.
7. Borja de Mozota D, Kadhel P, Dermeche S, et al. Multiple myeloma and pregnancy: a case report and literature review. *Archives of gynecology and obstetrics*. 2011;284(4):945-50.
8. Anderson KC, Carrasco RD. Pathogenesis of myeloma. *Annual review of pathology*. 2011;6:249-74.
9. Lee JC, Francis RS, Smith S, et al. Renal failure complicating myeloma in pregnancy. *Nephrology, dialysis, transplantation : official publication of the European Dialysis and Transplant Association - European Renal Association*. 2007;22(12):3652-5.
10. Kasenda B, Rückert A, Farthmann J, et al. Management of multiple myeloma in pregnancy: strategies for a rare challenge. *Clinical lymphoma, myeloma & leukemia*. 2011;11(2):190-7.
11. Danel L, Vincent C, Rousset F, et al. Estrogen and progesterone receptors in some human myeloma cell lines and murine hybridomas. *Journal of steroid biochemistry*. 1988;30(1-6):363-7.
12. Treon SP, Teoh G, Urashima M, et al. Anti-estrogens induce apoptosis of multiple myeloma cells. *Blood*. 1998;92(5):1749-57.
13. Zou W. Regulatory T cells, tumour immunity and immunotherapy. *Nature reviews Immunology*. 2006;6(4):295-307.
14. Sahara N, Takeshita A, Ono T et al. Role for interleukin-6 and insulin-like growth factor-I via PI3-K/Akt pathway in the proliferation of CD56- and CD56+ multiple myeloma cells. *Experimental hematology*. 2006;34(6):736-44.
15. Rajkumar SV. Updated Diagnostic Criteria and Staging System for Multiple Myeloma. *American Society of Clinical Oncology educational book American Society of Clinical Oncology Annual Meeting*. 2016;35:e418-23.
16. Slone SP, Ahmed Z, Cole LA, et al. Positive pregnancy tests in a nonpregnant, premenopausal woman due to hCG beta-chain production by multiple myeloma. *American journal of clinical pathology*. 2005;124(1):108-12.
17. Castaneda C, Minton N, Mezo M, et al. False-positive pregnancy tests in females of reproductive potential receiving lenalidomide in the United States. *Leukemia & lymphoma*. 2018;59(4):1025-6.
18. Tageja N, Valent J, Giordadze T, et al. Positive pregnancy tests in a postmenopausal woman due to beta-human chorionic gonadotropin production by multiple myeloma. *The American journal of the medical sciences*. 2010;339(2):182-4.
19. Malik S, Oliver R, Odejinmi F. A rare association with hyperemesis: pregnancy and multiple myeloma. *Journal of obstetrics and gynaecology : the journal of the Institute of Obstetrics and Gynaecology*. 2006;26(7):693-5.

20. Jurczynszyn A, Olszewska-Szopa M, Vesole AS, et al. Multiple Myeloma in Pregnancy--A Review of the Literature and a Case Series. *Clinical lymphoma, myeloma & leukemia*. 2016;16(3):e39-45.
21. Greipp PR, San Miguel J, Durie BG, et al. International staging system for multiple myeloma. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*. 2005;23(15):3412-20.
22. Palumbo A, Avet-Loiseau H, Oliva S, et al. Revised International Staging System for Multiple Myeloma: A Report From International Myeloma Working Group. *Journal of clinical oncology : Official journal of the American Society of Clinical Oncology*. 2015;33(26):2863-9.
23. Durie BG, Salmon SEJC. A clinical staging system for multiple myeloma correlation of measured myeloma cell mass with presenting clinical features, response to treatment, and survival. 1975;36(3):842-54.
24. Hinge M, Andersen KT, Lund T, et al. Baseline bone involvement in multiple myeloma - a prospective comparison of conventional X-ray, low-dose computed tomography, and 18flourodeoxyglucose positron emission tomography in previously untreated patients. *Haematologica*. 2016;101(10):e415-e8.
25. Moreau P, Attal M, Caillot D, et al. Prospective Evaluation of Magnetic Resonance Imaging and [(18)F]Fluorodeoxyglucose Positron Emission Tomography-Computed Tomography at Diagnosis and Before Maintenance Therapy in Symptomatic Patients With Multiple Myeloma Included in the IFM/DFCI 2009 Trial: Results of the IMAJEM Study. *Journal of clinical oncology : official journal of the American Society of Clinical Oncology*. 2017;35(25):2911-8.
26. Ntanasis-Stathopoulos I, Gavriatopoulou M, Kastritis E, et al. Multiple myeloma: Role of autologous transplantation. *Cancer treatment reviews*. 2020;82:101929.
27. Legarda MA, Cejalvo MJ, de la Rubia J. Recent Advances in the Treatment of Patients with Multiple Myeloma. *Cancers*. 2020;12(12).
28. Avilés A, Neri N. Multiple myeloma and pregnancy. *American journal of hematology*. 2011;86(1):81-2.
29. Nicholson HO. Cytotoxic drugs in pregnancy. Review of reported cases. *The Journal of obstetrics and gynaecology of the British Commonwealth*. 1968;75(3):307-12.
30. Willmott F, Agarwal N, Heath M, et al. Plasma cell myeloma diagnosed in pregnancy. *BMJ case reports*. 2010;2010.
31. Bouzguenda R, Khanfir A, Toumi N, et al. Multiple myeloma presenting as bilateral breast lumps in pregnant woman. *International journal of hematology*. 2013;98(4):487-90.
32. Smith D, Stevens J, Quinn J, et al. Myeloma presenting during pregnancy. *Hematological oncology*. 2014;32(1):52-5.
33. Mahmoud HK, Samra MA, Fathy GM. Hematologic malignancies during pregnancy: A review. *Journal of advanced research*. 2016;7(4):589-96.
34. Mhaskar R, Redzepovic J, Wheatley K, et al. Bisphosphonates in multiple myeloma: a network meta-analysis. *The Cochrane database of systematic reviews*. 2012(5):Cd003188.
35. Raje N, Terpos E, Willenbacher W, et al. Denosumab versus zoledronic acid in bone disease treatment of newly diagnosed multiple myeloma: an international, double-blind, double-dummy, randomised, controlled, phase 3 study. *The Lancet Oncology*. 2018;19(3):370-81.
36. Djokanovic N, Klieger-Grossmann C, Koren G. Does treatment with bisphosphonates endanger the human pregnancy? *Journal of obstetrics and gynaecology Canada : JOGC = Journal d'obstetrique et gynecologie du Canada : JOGC*. 2008;30(12):1146-8.
37. Forthman CL, Ponce BA, Mankin HJ. Multiple myeloma with a pathologic fracture during pregnancy. A case report. *The Journal of bone and joint surgery American volume*. 2004;86(6):1284-8.
38. Maglione A, Di Giorgio G, Petruzzelli F, et al. Multiple myeloma diagnosed during early pregnancy: a case report. *European journal of obstetrics, gynecology, and reproductive biology*. 2003;111(2):214-5.

39. Loren AW, Chow E, Jacobsohn DA, et al. Pregnancy after hematopoietic cell transplantation: a report from the late effects working committee of the Center for International Blood and Marrow Transplant Research (CIBMTR). *Biology of blood and marrow transplantation : journal of the American Society for Blood and Marrow Transplantation*. 2011;17(2):157-66.
40. Sakata H, Karamitsos J, Kundaria B, et al. Case report of interferon alfa therapy for multiple myeloma during pregnancy. *American journal of obstetrics and gynecology*. 1995;172(1 Pt 1):217-9.
41. Brisou G, Bouafia-Sauvy F, Karlin L, et al. Pregnancy and multiple myeloma are not antinomic. *Leukemia & lymphoma*. 2013;54(12):2738-41.
42. Khot AS, Prince HM, Harrison SJ, et al. Myeloma and pregnancy: strange bedfellows? *Leukemia & lymphoma*. 2014;55(4):966-8.