

# ÖZEL HASTA POPULASYONLARINDA ONKOLOJİK TEDAVİYE BAĞLI KARDİYOVASKÜLER KOMPLİKASYONLAR

Lütfi ÖCAL<sup>1</sup>

## GİRİŞ

Onkolojik tedavilerin kardiyovasküler etkilerini bazı hasta populasyonlarında ayrı incelemek faydalı olacaktır. Bu özel hasta populasyonlarında kendine özgü ilave gözönünde bulundurulması gereken özellikleri vardır. Örneğin çocuk hastalarda uzun dönem etkileri, yaşlı hastaların komorbit durumları veya gebelerin bebekleri gibi normal onkolojik hastalardan farklı olarak ilave durumları mevcuttur.

## PEDIATRİK KANSER POPULASYONU

Pediatrik kanserlerde tedavilerden alınan yüz güldürücü sonuçlar ve artan yaşam süresi, beraberinde bu tedavilerin uzun dönem bu hastalar üzerindeki etkileri ve komplikasyonları ile mücadeleyi getirmiştir (1). Bu etkilerden en önemlisini de kalp üzerinde göstermektedir. Bu populasyonda da en önemli mortalite nedeni olarak kardiyovasküler sebepler; kanser nüksü ve ikincil kanserler ile birlikte ilk sıralarda yer almaktadır (1-3).

Pediatrik kanserlerde sık kullanılan ve kardiyotoksik etkileri olan tedaviler radyoterapi ve antrasiklinlerdir ve bu tedavilerin etkileri doz bağımlı olarak değişmektedir (4). Bu pediatrik hastalarda adolesan ve yetişkin döneminde kalp yetersizliği, kapak hastalıkları, iskemik kalp hastalıkları, ileti sistemi bozuklukları ve perikard hastalıkları gelişebilmektedir (5,6). Bu hastalarda kardiyotoksisite doz bağımlı olmakta ve bu tedavilerin birlikte kullanımında daha da artmaktadır. Bu yüzden hastaların alındıkları tedaviler kadar dozları da not alınmalıdır ve buna göre takip sıklıkları ayarlanmalıdır. Ancak her dozda bu toksistenin olabileceği unutulmamalıdır (2,7,8).

<sup>1</sup> Uzm. Dr., SBÜ Kartal Koşuyolu Y.İ.E.A.H., Kardiyoloji Kliniği, lutfiocal@hotmail.com

## KAYNAKLAR

1. Lipshultz SE, Sambatakos P, Maguire M, et al. Cardiotoxicity and cardioprotection in childhood cancer. *Acta Haematol.* 2014;132:391–9.
2. Lipshultz SE, Adams MJ, Colan SD, et al. Long-term cardiovascular toxicity in children, adolescents, and young adults who receive cancer therapy: pathophysiology, course, monitoring, management, prevention, and research directions: a scientific statement from the American Heart Association. *Circulation.* 2013;128: 1927–95.
3. Van der Pal HJ, Van Dalen EC, Van Delden E, et al. High risk of symptomatic cardiac events in childhood cancer survivors. *J Clin Oncol.* 2012;30:1429–37.
4. Tukenova M, Guibout C, Oberlin O, et al. Role of cancer treatment in long-term overall and cardiovascular mortality after childhood cancer. *J Clin Oncol* 2010;28:1308–1315.
5. Dillenburg RF, Nathan P, Mertens L. Educational paper: decreasing the burden of cardiovascular disease in childhood cancer survivors: an update for the pediatrician. *Eur J Pediatr.* 2013;172:1149–60.
6. Gudmundsdottir T, Winther JF, de Fine Licht S, et al. ALiCCS study group. Cardiovascular disease in adult life after childhood cancer in Scandinavia: a population-based cohort study of 32,308 one-year survivors. *Int J Cancer* 2015;137:1176–1186.
7. Armenian SH, Hudson MM, Mulder RL, et al. Recommendations for cardiomyopathy surveillance for survivors of childhood cancer: a report from the International Late Effects of Childhood Cancer Guideline Harmonization Group. *Lancet Oncol.* 2015;16:e123–36.
8. Schellong G, Riepenhausen M, Bruch C, et al. Late valvular and other cardiac diseases after different doses of mediastinal radiotherapy for Hodgkin disease in children and adolescents: report from the longitudinal GPOH follow-up project of the German-Austrian DAL-HD studies. *Pediatr Blood Cancer.* 2010;55:1145–52.
9. Barry E, Alvarez JA, Scully RE, et al. Anthracycline-induced cardiotoxicity: course, pathophysiology, prevention and management. *Expert Opin Pharmacother.* 2007;8:1039–58.
10. Vejpongsa P, Yeh ETH. Prevention of anthracycline-induced cardiotoxicity: challenges and opportunities. *J Am Coll Cardiol.* 2014;64:938–45.
11. Kremer LCM, van Dalen EC. Dexrazoxane in children with cancer: from evidence to practice. *J Clin Oncol.* 2015;33:2594–6. doi:10.1200/JCO.2015.61.7928.
12. Chow EJ, Asselin BL, Doody DR, et al. Late mortality after dexrazoxane treatment: a report from the Children's Oncology Group. *J Clin Oncol.* 2015. doi:10.1200/JCO.2014.59.4473.
13. Lipshultz SE, Scully RE, Lipsitz SR, et al. Assessment of dexrazoxane as a cardioprotectant in doxorubicin-treated children with high-risk acute lymphoblastic leukaemia: long-term follow-up of a prospective, randomised, multicentre trial. *Lancet Oncol.* 2010;11:950–61.
14. VanDalen EC, Caron HN, Dickinson HO, et al. Cardioprotective interventions for cancer patients receiving anthracyclines. *Cochrane Database Syst Rev.* 2011. CD003917. doi:10.1002/14651858.CD003917.pub4
15. Hurria A, Togawa K, Mohile SG, et al. Predicting chemotherapy toxicity in older adults with cancer: a prospective multicentre study. *J Clin Oncol.* 2011;29(25):3457–65.
16. Extermann M, Aapro M, Bernabei R, et al. Use of the comprehensive geriatric assessment in older cancer patients: recommendations from the task force on CGA of the International Society of Geriatric Oncology (SIOG). *Crit Rev Oncol Hematol.* 2005;55(3):241–55.
17. Sogaard M, Thomsen RW, Bossen KS, et al. The impact of comorbidity on cancer survival: a review. *Clin Epidemiol.* 2013;5:3–29.
18. Luciani AB, Battisti N, Romanato G, et al. The assessment of chemotherapy risk in elderly cancer patients: validation of the CRASH score in an Italian cohort. *J Clin Oncol.* 2015; 33 (suppl; abstr e20521).
19. Maggiore RJ, Dale W, Gross CP, Feng T, et al. Polypharmacy and potentially inappropriate medication use in older adults with cancer undergoing chemotherapy: effect on chemotherapy-related toxicity and hospitalization during treatment. *J Am Geriatr Soc.* 2014;62:1505–1512 ([Epub 2014/07/22]).

20. Zauderer M, Patil S, Hurria A. Feasibility and toxicity of dose-dense adjuvant chemotherapy in older women with breast cancer. *Breast Cancer Res Treat.* 2009;117:205–10.
21. Giordano SH, Pinder M, Duan Z, et al. Congestive heart failure (CHF) in older women treated with anthracycline (A) chemotherapy (C). *J Clin Oncol.* 2006; 24 (abstr 521)
22. Balducci L, Beghe C. Pharmacology of chemotherapy in the older cancer patient. *Cancer Control.* 1999;6:466–70.
23. Fumoleau P, Roché H, Kerbrat P, et al. Longterm cardiotoxicity after adjuvant epirubicin-based chemotherapy in early breast cancer: French Adjuvant Study Group results. *Ann Oncol.* 2006;17:85–92.
24. Van Calsteren K, Heyns I, De Smet F, et al. Cancer during pregnancy: an analysis of 215 patients emphasizing the obstetrical and the neonatal outcomes. *J Clin Oncol* 2010;28:683–689.
25. Gziri MM, Debieve F, de Catte L, et al. Chemotherapy during pregnancy: effect of anthracyclines on fetal and maternal cardiac function. *Acta Obstet Gynecol Scand* 2012;91:1465–1468.
26. Van Calsteren K, Verbesselt R, Beijnen J, et al. Transplacental transfer of anthracyclines, vinblastine, and 4-hydroxy-cyclophosphamide in a baboon model. *Gynecol Oncol* 2010;119:594–600.
27. Cardonick E, Dougherty R, Grana G, et al. Breast cancer during pregnancy: maternal and fetal outcomes. *Cancer J* 2010;16:76–82.