The Breast 43 (2019) 149–152

Contents lists available at ScienceDirect

The Breast

journal homepage: www.elsevier.com/brst

Correspondence

Safety of fertility preservation in women with breast cancer

Dear Editor,

The updated ASCO guidelines recommend oncologists to address the risk of infertility following cancer treatment and discuss methods for fertility preservation (FP) with all patients [1]. However, despite these recommendations, still many women are not accessing FP. We read with interest the recent Italian study by Lambertini et al. [2], which showed that although most women presenting with breast cancer at reproductive age (93.1%) were concerned about treatment-related ovarian insufficiency, only 11 of 131 decided to undergo clinically established cryopreservation strategies for FP. The main reason for not accessing FP was fear of the procedures.

We recently conducted a matched-cohort study in Sweden to follow 188 women with breast cancer who opted for FP and 378 controls using the data from the Swedish National Breast Cancer Quality Registry [3]. Due to the registry's high compliance, 94% of the patients could be included in the survival analyses. Our results indicate that FP procedures are safe in women with breast cancer. Using Cox regression models we could also adjust for confounding factors such as prognostic risk factors and type of treatment and no differences in recurrences or survival after a mean follow-up time of 6.6 years was found between the groups.

Conflict of interest

There is no conflicts of interest to disclose.

References

[1] Lambertini M, Fontana V, Massarotti C, Poggio F, Dellepiane, et al. Prospective study to optimize care and improve knowledge on ovarian function and/or fertility preservation in young breast cancer patients: results of the pilot phase of the PREgnancy and FERtility (PREFER) study. Breast 2018 Jun 22;41:51–6.
[2] Oktay K, Harvey BE, Partridge AH, Quinn GP, Reinecke J, Taylor HS, Wallace WH, Wang ET, Loren AW. Fertility preservation in patients with cancer: ASCO clinical practice guideline update. J Clin Oncol 2018 Jul 1;36(19):1994–2001.
[3] Rodriguez-Wallberg KA, Eloranta S, Krawiec K, Lissmats A, Bergh J, Liljegren A. Safety of fertility preservation in breast cancer patients in a register-based matched cohort study. Breast Canc Res Treat 2018 Feb;167(3):761–9.

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14 September 2018
Available online 2 October 2018

https://doi.org/10.1016/j.breast.2018.09.007

Reply to the letter “Safety of fertility preservation in women with breast cancer”

Letter

We appreciate the interest of Rodriguez-Wallberg in our PREFER study (ClinicalTrials.gov identifier: NCT02895165) investigating preferences and choices of young women with newly diagnosed breast cancer towards the different available strategies for ovarian function and/or fertility preservation [1]. Although more than 90% of young breast cancer patients showed to be concerned about the potential risk of developing chemotherapy-induced premature ovarian insufficiency and/or infertility, only 12% of them decided to

access cryopreservation strategies. The main reason for not being interested in these procedures was completion of family planning before breast cancer diagnosis [1]. However, as highlighted by Rodriguez-Wallberg, because of the need to receive controlled ovarian stimulation, some patients expressed safety concerns towards accessing oocyte cryopreservation. Notably, also treating physicians may experience safety issues on this regard. In a recent survey investigating the attitudes of breast cancer specialists towards fertility and pregnancy-related issues in young breast cancer patients, we showed that approximately 20% of responding physicians do not consider controlled ovarian stimulation for embryo/oocyte cryopreservation as a safe procedure in this setting [2]. However, these concerns are not supported by the currently available (but limited) data showing that the access to cryopreservation strategies is not associated with any detrimental prognostic effect [3]. Therefore, it is expected that a growing number of patients will access these procedures in the coming years. Protocols for controlled ovarian stimulation including an aromatase inhibitor (or tamoxifen) are preferred for safety reasons in breast cancer patients to ameliorate these concerns [4,5].

Notably, results of the PREFER study also showed that approximately 90% of young breast cancer patients accept the use of temporary ovarian suppression with gonadotropin-releasing hormone agonists during chemotherapy as a strategy for gonadal protection [1]. Based on the recently available efficacy and safety evidence on this procedure [6], current guidelines recommend to discuss this option as a strategy for reducing the likelihood of chemotherapy-induced premature ovarian insufficiency [5,7,8]. In patients with no pregnancy desire, such as women who have already completed their family planning before breast cancer diagnosis, avoiding the risk of developing this side effect with its associated symptoms should be considered of great importance and should be always discussed as part of the oncofertility counseling with all young breast cancer patients.

Conflict of interest statement

Matteo Lambertini served as a consultant for Teva and received speaker honoraria from Theramex outside the submitted work. Lucia Del Mastro received honoraria from Takeda and personal fees from Ipsen and Takeda outside the submitted work. Paola Anserini declared no conflicts of interest.

Acknowledgements

Matteo Lambertini acknowledges the support from the European Society for Medical Oncology (ESMO) for a Translational Research Fellowship at the Institut Jules Bordet (Brussels, Belgium).

https://doi.org/10.1016/j.breast.2018.10.005

References

[1] Lambertini M, Fontana V, Massarotti C, Poggio F, Dellepiane C, Iacono G, et al. Prospective study to optimize care and improve knowledge on ovarian function and/or fertility preservation in young breast cancer patients: results of the pilot phase of the PREgnancy and FERtility (PREFER) study. Breast 2018;41:51–6.
[2] Lambertini M, Di Maio M, Pagani O, Curigliano G, Poggio F, Del Mastro L, et al. The BCY3/BCC 2017 survey on physicians' knowledge, attitudes and practice towards fertility and pregnancy-related issues in young breast cancer patients. Breast 2018;42:41–9.
[3] Rodgers RJ, Reid GD, Koch J, Deans R, Ledger WL, Friedlander M, et al. The safety and efficacy of controlled ovarian hyperstimulation for fertility preservation in women with early breast cancer: a systematic review. Hum Reprod 2017;32(5):1033–45.
[4] Peccatori FA, Azim Jr HA, Orecchia R, Hoekstra HJ, Pavlidis N, Kesic V, et al. Cancer, pregnancy and fertility: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. Ann Oncol 2013;24(Suppl 6):160–70.
[5] Oktay K, Harvey BE, Partridge AH, Quinn GP, Reinecke J, Taylor HS, et al. Fertility preservation in patients with cancer: ASCO clinical practice guideline update. J Clin Oncol 2018;36(19):1994–2001.
[6] Lambertini M, Moore HCF, Leonard RCF, Loibl S, Munster P, Bruzzone M, et al. Gonadotropin-releasing hormone agonists during chemotherapy for preservation of ovarian function and fertility in premenopausal patients with early breast cancer: a systematic review and meta-analysis of individual patient-level data. J Clin Oncol 2018;36(19):1981–90.
[7] Paluch-Shimon S, Pagani O, Partridge AH, Abulkhair O, Cardoso M-J, Dent RA, et al. ESO-ESMO 3rd international consensus guidelines for breast cancer in young women (BCY3). Breast 2017;35:203–17.
[8] Lambertini M, Cinquini M, Moschetti I, Peccatori FA, Anserini P, Valenzano Menada M, et al. Temporary ovarian suppression during chemotherapy to preserve ovarian function and fertility in breast cancer patients: a GRADE approach for evidence evaluation and recommendations by the Italian Association of Medical Oncology. Eur J Canc 2017;71:25–33.

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16 October 2018
Available online 19 October 2018