CORRESPONDENCE

The Treatment of Primary Breast Cancer in Older Women With Adjuvant Therapy

by Dipl.-Gesw. Elke Peters, Dr. med. Tobias Anzeneder, Prof. Dr. med. Christian Jackisch, Prof. Dr. med. Thomas Dimpfl, PD Dr. med. Georg Kunz, Prof. Dr. med. Alexander Katalinic, and PD Dr. rer. nat. Annika Waldmann in issue 35–36/2015

Lower Breast Cancer Mortality in Patients Aged 70+ Achievable

The last sentence of the article requires further comment: “US breast cancer patients >70 years of age have a higher 5-year survival rate than German patients” (1). The authors mention that systemic treatment is less frequently provided with advancing age. However, this only applies to aggressive chemotherapy, not to anti-hormonal therapy. Regarding the range of side effects associated with antihormonal treatment, it has to be distinguished between aromatase inhibitors and tamoxifen. The latter directly targets the cancer cell. Its use over a period of 10 years is superior to that over 5 years and results in a better prognosis (2): 21% recurrence rate vs. 25%, and 12% mortality rate vs. 15%, respectively.

Aromatase inhibitors completely blocking the transformation of testosterone to estrogen from adrenal glands and ovaries do not provide any additional benefit. To the contrary: they promote osteoporosis, resulting in an increase in femoral neck fractures. More frequent dyslipidemia raises the risk of vascular pathology and CAD events.

However, tamoxifen has partial estrogen effects which are beneficial for bones and vessels. Therefore, the American Society of Clinical Oncology (ASCO) recommended tamoxifen as the first-line treatment in their 2014 guideline, while aromatase inhibitors were only listed as a treatment alternative. Large studies had shown a treatment advantage of only a few percent over tamoxifen. For the following reasons:

7 to 10% of women cannot metabolize the prodrug tamoxifen into the oncologically 100-times more effective endoxifen. This can be better predicted using genotyping than it has been undertaken in large studies (3). On the level of individual patients, a specific medication history can be taken and drugs inhibiting tamoxifen metabolism can be exchanged for other medications without this effect.

If both measures are taken, tamoxifen is significantly superior as an oncological treatment—despite the cumulative risk of endometrial cancer of 0.2% in 10 years; the risk of venous thromboembolism was 1%.

A study on advanced breast cancer among up to 90-year-old patients in reduced general condition conducted at Charité–Universitätsmedizin Berlin confirmed the clinical advantage of tamoxifen.

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Prof. Dr. med. J. Matthias Wenderlein
Universität Ulm, Germany
wenderlein@gmx.de

Conflict of interest statement

The author declares that no conflict of interest exists.

Age-Linked Treatment Rates

Peters et al. report in their study about the management of incident breast cancer patients that patients aged >69 years received breast-conserving surgery, chemotherapy and radiotherapy significantly less frequently (1). Furthermore, even though no age-specific differences in the distribution of positive HER2/neu and hormone receptor status exist, comparatively fewer patients aged >69 years were treated with trastuzumab or hormone therapy. The article is based on data on clinical characteristics, tumor-biological findings and retrospectively conducted patient surveys on breast cancer treatment from a 2-year follow-up. Breast cancer patients without adjuvant therapy, with neoadjuvant therapy and/or with distant metastasis were excluded.

The PMV Research Group conducted a healthcare research study among breast cancer patients incident in 2010 in Germany. This study included a 2-year follow-up and was based on nationwide secondary data from the BARMER-GEK statutory health insurance (n = 6152; <50 years, 14%; 50–69 years, 53%; >69 years, 32%). Essentially, our study confirmed the age-group differences reported by Peters et al.: Patients aged >69 years received comparatively less chemotherapy (65% vs. 37% vs. 14%), radiotherapy (72% vs. 76% vs. 51%) and treatment of HER2/neu-positive tumors with trastuzumab (16% vs. 9% vs. 4%). No differences between the age-groups were identified with regard to hormone therapy (67% vs. 74% vs. 67%). The analysis of the various groups of treating physicians showed that patients aged >69 years received comparatively less care from specialists in gynecology (95% vs. 91% vs. 80%), hematology/oncology (27% vs. 18% vs. 11%) and radiotherapy (63% vs. 67% vs. 48%).

As this study is based on secondary data it has the advantage that no distortions as the result of recall bias

and selection bias are to be expected. Limitations include the lack of data on clinical characteristics and treatment adherence.

The above mentioned results largely confirm the age-group differences reported by Peters et al., but provide no explanation either. DOI: 10.3238/arztebl.2016.0287b

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Dr. sc. hum. Rebecca Hein, Dipl. Math. oec.

Dr. rer. soc. Ingrid Schubert

PMV forschungsgruppe an der Klinik und Poliklinik für Kinder- und Jugendpsychiatrie, Universität zu Köln, Germany

Dr. sc. hum. Rebecca Hein, Dipl. Math. oec.

Institut für Medizinische Statistik, Informatik und Epidemiologie (IMSIE)
Universität zu Köln, Germany
Rebecca.Hein@uni-koeln.de

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In Reply:

We would like to thank Professor Wenderlein for reading our article and Dr. Hein and Dr. Schubert, in addition, for complementing our results with their own data.

The data from their healthcare research study mentioned by Dr. Hein and Dr. Schubert underscore the differences in the treatment of breast cancer between the various age groups. Since we have used an alternative approach (analysis of secondary data), our results further support the observation that age group has a significant impact on the management of breast cancer.

The differential use of various specialists by patients in the three age groups should be further investigated. In this context, we would like to note that while in-patient care is—at least in certified breast centers—provided in accordance with the guidelines, no comparable out-patient care structure has been established so far.

Professor Wenderlein's comments could lead to the impression that the potential developments in the field of antihormonal therapy of breast cancer mentioned by him had already been conclusively studied or included in the guidelines in the way he presented them. This refers to the following statements on tamoxifen: “use over a period of 10 years is superior to that over 5 years“, “aromatase inhibitors ... do not provide any additional benefit“ and “genotyping“ in connection with the metabolism of tamoxifen. However, one has to conduct additional studies or wait for the results of ongoing trials in order to understand these scientific connections and answer most of these questions with a high level of evidence. This was not something we could have expected to achieve with our article.

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On behalf of the authors:

Elke Peters

Institut für Sozialmedizin und Epidemiologie
Lübeck, Germany
Elke.Peters@uksh.de

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The author declares that no conflict of interest exists.