Arthralgia in Breast Cancer Survivors: An Integrative Review of Endocrine Therapy

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Problem Identification: Aromatase inhibitors (AIs) and the selective estrogen receptor modulator tamoxifen (Nolvadex®) are essential to extended survival for women with post-menopausal breast cancer. However, they can result in painful arthralgia.

Literature Search: Databases searched for eligible articles were CINAHL®, Cochrane Database of Systematic Reviews, EMBASE, Google Scholar, MEDLINE®, PsycINFO®, PubMed, Scopus, and Sociological Abstracts (ProQuest).

Data Evaluation: The final sample for this integrative review consisted of 16 studies. The total sample of women included across all studies was 11,511.

Synthesis: Content analysis was used to summarize the study findings.

Conclusions: AIs result in a higher incidence of arthralgia compared to tamoxifen. All breast cancer survivors commencing AI therapy should undergo a baseline assessment to identify any increased risk of arthralgia. All women on AIs should have their vitamin D levels checked before beginning AIs and annually thereafter. Many women may need higher doses of vitamin D supplementation than normally recommended. All women taking AIs should be advised on self-help strategies to alleviate pain, such as walking and yoga.

Implications for Practice: Oncology nurses are ideally placed to undertake a baseline assessment before AI therapy. Nurses can also use this opportunity to educate women on their risk of developing AI-related arthralgia and provide advice on vitamin D supplementation. In addition, nurses play an important role in educating women on self-help strategies.

Breast cancer is the most common noncutaneous malignancy among women. Long-term survival of individuals with breast cancer is high, with five-year survival rates of almost 90% (Runowicz et al., 2016). Individuals with breast cancer are living longer and, therefore, require ongoing, more inclusive survivorship care (Thompson et al., 2014).

Survivorship was first highlighted more than a decade ago in an Institute of Medicine (IOM) report as a distinct phase of cancer care with four essential components: prevention, surveillance, intervention, and coordination of care (Hewitt, Greenfield, & Stovall, 2006). The IOM also recommended that cancer survivors have a follow-up plan addressing issues related to health care and quality of life (Hewitt et al., 2006). More recently, the National Comprehensive Cancer Network and the American Society of Clinical Oncology published evidence- and consensus-based survivorship care guidelines for individuals with breast cancer to help survivors reach optimal health and quality of life (Runowicz et al., 2016).

Evidence-based approaches for survivorship care and the delivery of survivorship care planning are evolving. The nurse-led model of follow-up care has been shown to result in high levels of satisfaction with the level of care provided (Lewis et al., 2009). Oncology nurses are ideally placed to provide this care. However, to do so, they must base this care on evidence (Bessen et al., 2014; Rushton et al., 2015).