The Role of **Extended Endocrine** Treatment in **Breast Cancer**

As an Oncoplastic Breast Surgeon who often manages breast cancer patient's endocrine treatment after the surgical phase is completed, I often get asked about the role of the extended hormonal treatment protocols.

The issue of endocrine treatment in breast cancer has been a constantly developing story. We know from older studies that using tamoxifen in an adjuvant setting in hormone positive (HR+ve) cancers reduces risk of recurrence by 50% and improves overall survival significantly. The same has been established for aromatase inhibitors (AIs) in the post-menopausal setting. Furthermore, its been shown that AIs are better than tamoxifen in post-menopausal setting, with greater reductions in both risk of recurrence and overall survival.

Currently the standard timeframe that has been advocated is 5 years of tamoxifen or AI; or 2-3 years of Tamoxifen and then switching to AI; or in some case 5 years of tamoxifen and then switching to AI - depending on a woman's hormonal circumstances.

It is also established that 5 years of endocrine treatment has an ongoing benefit to patients for an additional 5 years after cessation of therapy.

So why are we discussing the need for a longer duration of endocrine treatment?

The reason is that 50% of HR+ve breast cancers recur after the first 5 years and a significant proportion 10-15 years later.

Furthermore, the optimal duration of endocrine treatment has been chosen arbitrarily and was never really established.

Recently two large randomised studies have suggested that 10 years of tamoxifen is better than 5, with a small absolute improvement in overall survival and risk reduction. And once again, the benefit seems to continue for the following 5 years after cessation of therapy.

So does this mean that every suitable patient should now be offered 10 years of endocrine therapy?

The short answer is no.

The reason for this is that the benefit seems to be restricted to a group of patients and not necessarily all comers. Furthermore a decade of tamoxifen or AI comes with potentially significant increase in DVT and PE, increase in endometrial cancer, stroke, osteoporosis, arthralgias and menopausal symptoms. Taken in this context it may be significantly harder for the patient to agree to or remain compliant with this extended treatment plan.

Lastly, we still don't have any actual evidence for the use of AIs specifically for longer than 5 years, and whilst by extrapolation from tamoxifen results we think that it will be useful, the trials looking at this question are not yet completed.

Therefore, although the trials have shown an improvement in risk reduction and overall survival for all HR+ve women, in reality we may need to be more selective and target perhaps more at risk subgroups with more negative prognostic factors, in whom the benefits outweigh the potential harms.

References:

1. Long-term effects of continuing adjuvant tamoxifen to 10 years versus stopping at 5 years after diagnosis of oestrogen receptor-positive breast cancer: ATLAS,a randomised trial, Davies et al, Lancet 2013

2. Letrozole in the extended adjuvant setting: MA.17, Goss P, Breast Cancer Res Treat (2007) 105:45–53

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