Section introduction

Introduction to sessions on guidelines and endocrine therapy, the influence of breast screening on number of mastectomies and the challenge between molecular science and traditional dogma in the treatment of breast cancer. Introduction to Session 6

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The reduction in breast cancer mortality during the past 20 years can be partly explained by increased use of adjuvant endocrine therapy. During recent years a number of studies have explored potential benefits of aromatase inhibitors (AIs) over tamoxifen for postmenopausal women with oestrogen receptor-positive breast cancer. Early results, which reported improved disease-free survival with AIs, led to a recommendation by the American Society of Clinical Oncology technology assessment panel in 2005 that the treatment of these women should include an AI, either as initial (up-front) therapy or following a period of treatment with tamoxifen [1]. Despite the improved disease-free survival with AIs, a recent review of up-front use of AIs failed to show any evidence of significant improvement in overall survival over tamoxifen, or in quality of life, and advised caution for use of this strategy pending future results from the BIG 1-98 clinical trial [2].

Professor Ian Smith presented results from BIG 1-98 comparing 5 years of letrozole with tamoxifen. These results, first presented at the San Antonio Breast Cancer Symposium in 2008 [3], show no statistically significant overall survival benefit for Letrozole at 76 months follow up. These results support a recent meta-analyses of AI use that showed no evidence of a significant overall survival advantage when AIs are used up front [4]. In fact, the only AI studies that demonstrate an overall survival advantage to date involve switching to an AI after initial therapy with tamoxifen [5]. Current American Society of Clinical Oncology guidelines, and recent National Institute of Clinical Excellence guidelines, allow clinicians to decide whether to pursue an up-front approach to AI use or whether to adopt a switching strategy.

Professor Ian Smith also presented a summary of results from the Z-FAST and ZO-FAST studies, comparing the effects of zoledronic acid initiated concurrently with letrozole or when bone loss becomes clinically significant in postmenopausal women with early breast cancer. An integrated analysis of both studies [6] suggests that up-front use of zoledronic acid is an effective strategy to prevent AI-associated bone loss, when given in combination with letrozole for postmenopausal women, and in addition appears to reduce the risk of breast cancer recurrence. Although the recurrence data require further follow up, these early results would support a change in the 2009 National Institute of Clinical Excellence guidelines.

Professor Mike Dixon presented data on the number of mastectomies currently performed for early breast cancer in the UK using data from the NHS Breast Screening Programme. He suggested that although the mastectomy rate for screen-detected ductal carcinoma *in situ* has remained fairly constant in recent years, the massive increase in the numbers of women diagnosed with ductal carcinoma *in situ* means that overall the number of mastectomies has increased. In his opinion, as ductal carcinoma *in situ* is a unifocal disease it may be possible to avoid mastectomy in a large number of cases, although increased use of oncoplastic techniques will be required for more extensive resections. Alternative strategies could include preoperative neoadjuvant hormone therapy or preoperative HER2 blockade.

Finally, Professor Dixon presented a summary of the COMICE study, where patients recommended to have breast-conserving surgery were randomised to have breast magnetic resonance imaging or not. In this study, magnetic resonance imaging caused a significant increase in the mastectomy rate

AI = aromatase inhibitor.

(13% vs. 9%) but did not reduce the re-excision rate; as a result, routine use of magnetic resonance imaging for all women having breast-conserving surgery is not currently recommended.

Competing interests

The authors declare that they have no competing interests.

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