EDITORIAL

Some clarity in the management of DCIS in breast cancer screening

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Finding ductal carcinoma in situ (DCIS) in breast cancer screening is a concern because of uncertainty over its management. Screening has led to an increase in its incidence, representing about 1 in 10 of all treated breast cancers and about 1 in 5 of screen-detected cancers.

Cuzick and his colleagues[1] recently reported the long-term results from a randomized large trial of 1701 women with locally excised DCIS. The trial had a 2×2 factorial design (radiotherapy, tamoxifen, both or neither). Most of the women were aged 50–64 at randomization, about 10% younger and 10% older. The results showed a benefit of radiotherapy; it reduced all recurrences in the irradiated breast by about 60%. There was also a benefit of tamoxifen; it reduced all new breast events (invasive cancers and DCIS) by about 30% and by about 50% in the contralateral breast. However, there was no reduction in ipsilateral *invasive* events and the effect of tamoxifen on ipsilateral recurrence among women who had radiotherapy was smaller than in women who did not receive radiotherapy.

The results indicate that treatment for DCIS is effective in reducing recurrence, but had a minimal effect on mortality. Studies in small invasive tumours have indicated that local recurrence is much lower when wide surgical margins are obtained[2] and radiotherapy administered. This is now more widely practised. It is however unclear which patients need radiotherapy and whether partial breast irradiation would be adequate. Although the trial was limited to women who were suitable for breast conservation, it is probably reasonable to apply the results to DCIS in which the margins of the disease are uncertain, so requiring mastectomy. There were 376 women with new breast events and 39 women who died of breast cancer, about 22% and 2% respectively. The number of deaths in the different treatment groups was too small to be meaningful. The results show that women with DCIS have a relatively low breast cancer mortality rate and death rates from vascular disease were also low (about 1%). The high 'breast event' rate (DCIS and invasive cancer – about 32% over about ten years) indicates that prudence should dictate offering women with DCIS post-surgical radiotherapy and tamoxifen and probably radiotherapy. The high breast event rate is similar to that observed in women with small invasive tumours[3,4] for whom radiotherapy is useful, giving support for the use of local radiotherapy in DCIS as well as tamoxifen.

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