Long waits for radiotherapy linked to increased recurrence of breast cancer

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The longer women wait for radiotherapy after breast cancer surgery, the more chance there is of local recurrence, concludes a study published in the British Medical Journal today.

The authors suggest that starting radiotherapy as soon as possible will minimise this risk.

Four to six weeks is generally accepted as a reasonable interval between cancer surgery and radiotherapy, but evidence on the effect of waiting times in patients with breast cancer is mixed.

So researchers from the United States, Canada and Japan studied the relation between interval to radiotherapy and recurrence of breast cancer.

They analysed national cancer records for 18,050 US women who were diagnosed with early stage breast cancer during 1991-2002 when they were aged 65 or older. All women received breast conserving surgery and radiotherapy, but not chemotherapy.

Demographic information was identified using data from the 2000 US population census, and women were followed up for an average of five years.

The results showed that starting radiotherapy more than six weeks after surgery was associated with a modest but significant increase in local

recurrence. More than one in four women (30%) in the study started radiotherapy after this time and 734 (4%) experienced a local recurrence at five years.

Further analysis showed a continuous relation between time to radiotherapy and local recurrence, suggesting that initiating radiation therapy as soon as possible could minimise local recurrence risk.

Longer times to radiotherapy were also found among Black and Hispanic women and among women who lived outside the southern states of the US, where rates of breast conserving surgery were higher, suggesting limitations in capacity of radiation delivery.

The implication of a continuous relationship between start of radiotherapy and local recurrence is that there is no "safe" threshold in terms of waiting time and that radiotherapy should therefore be started as soon as possible, say the authors.

The cost of increasing capacity to ensure uniformly short waiting times could be substantial and would need to be weighed against the small absolute benefit in local recurrence, they add. But, given the known negative impact of local recurrence on overall survival, and the large numbers of women treated with radiotherapy for breast cancer, it seems appropriate to consider whether this is a price we should be prepared to pay, they conclude.

Minimising delay improves outcomes, so investment and planning are needed, say Ruth Jack and Lars Holmberg from King's College London, in an accompanying editorial.

Healthcare providers need to assess where potential delays are occurring and ensure that they are reduced, as well as ensuring equal opportunities in accessing good care, they write. However they suggest that, if

substantial investment is needed, the modest effects seen in this study would have to be weighed against other opportunities and priorities in cancer care.

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