

Relationship Between Margin Width and Recurrence of Ductal Carcinoma In Situ: Analysis of 2996 Women Treated With Breast-conserving Surgery for 30 Years

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In this review of nearly 3000 women undergoing breast-conserving surgery for DCIS at Memorial Sloan-Kettering over a 30-year time period, Van Zee and colleagues have found that there is a strong association between margin width and risk of recurrence, and that the relationship between margin width and recurrence is variable depending on receipt of radiation.

Among women not undergoing radiation, obtaining wider negative margins was significantly associated with lower recurrence rates, even after adjustment for numerous other factors. The hazard ratio for the widest margins (>10mm or no residual disease on reexcision) was 0.31 ($p < 0.0001$) compared to positive margins. This is equivalent to a 69% reduction in risk of recurrence.

However, among women undergoing radiation, obtaining wider negative margins was not associated with lower recurrence rates, on univariate analysis or after adjusting for numerous other factors (HR=0.88, $p=0.95$).

It is important to note that this study should not be interpreted as indicating that positive or close margins are acceptable if radiation is given. A key caveat that the authors point out is that,

“...very few women had positive margins, as it is our standard practice to achieve clear margins. Most positive margins were at the dermis or pectoralis fascia, rather than at a radial margin. Furthermore, cases with positive or close margins generally had very limited, focal disease at or near the inked margin. Together, these observations suggest that our patients with close or positive margins likely had a lower residual disease burden than some other series. This limitation may cause our reported recurrence rates for close and positive margins to underestimate recurrence rates for women with a greater volume of disease at or near the margin, as it is known that volume of disease near the margin is related to recurrence.”