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ASO AUTHOR REFLECTIONS

ASO Author Reflections: Advising a Woman with Ductal Carcinoma In Situ Regarding Various Treatment Options—A Complex Decision

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PAST

Treatment options for ductal carcinoma in situ (DCIS) include breast-conserving surgery (BCS), BCS with adjuvant irradiation or endocrine therapy or both, and mastectomy. When extent of disease permits oncologically safe selection of various approaches, patient decision making may be complex. Concerns about perceived risk of locoregional recurrence (LRR) have been shown to significantly influence patient decisions, but quality-of-life considerations are also important.[1] The goal of preoperative treatment planning should be to help a woman optimally weigh LRR risk and quality-of-life issues for the various options.[2]

In an era of increasing rates of mastectomy for DCIS, particularly among young women, clarifying individual risk of LRR is a crucial component of accurate patient counseling.[3] While young age, high nuclear grade, and inadequate margins are known risk factors for LRR after BCS, rates and risk factors for LRR after mastectomy are unclear.[4,5] Our study sought to clarify the interplay of relevant risk factors and to supply contemporary data for evidence-based risk estimation to inform decision making.[6]

PRESENT

In this population of 3121 consecutive patients with DCIS with or without microinvasion treated with mastectomy from 1995 to 2017, we observed an overall cumulative 10-year incidence of LRR of 1.4%.[6] While uncommon in all age groups, younger women had an increased 10-year cumulative incidence of LRR: < 40 years, 4.2%; 40–49 years, 2.0%; ≥ 50 years, 0.2%.

High nuclear grade and microinvasion also were associated with risk of LRR, and these factors, as well as close/positive margins, were more prevalent in younger women. Therefore, a possibility existed that our finding of higher risk associated with younger age was due to confounding from these other high-risk features. However, age remained independently predictive even after adjusting for grade and presence of microinvasion. In fact, the risk factors appear to be additive, with the majority of excess risk harbored by women younger than age 40 years who also had high grade and microinvasion. LRR risk was exceedingly low ($< 2\%$) among women older than age 50 years regardless of grade and presence of microinvasion. These findings lend insight to the complex interplay of risk factors for LRR, awareness of which is important in an era of increased utilization of mastectomy for DCIS.

FUTURE

While overall rates of LRR after mastectomy for DCIS with or without microinvasion are low, there is a demonstrated increased risk among young women, which is influenced by the presence of high-grade DCIS and microinvasion. Evidence-based estimation and individualized discussion of risk are essential to inform patient decision making, particularly among women motivated toward mastectomy by a desire to reduce recurrence.

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Contemporary multidisciplinary strategies have allowed for individualized decision making, which optimizes outcomes while minimizing unnecessary morbidity. With continued improvements in our understanding of individual risk of LRR and of the impact of various treatments on quality of life, we hope to better align individual values with available treatments to achieve optimal decision making and patient satisfaction. Future investigation may allow for the identification of the very highest-risk patients and evaluation of potential benefit of additional therapies.

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