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ASO Author Reflections: Delays in the Treatment of DCIS—What Are the Costs?

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Past:

Standard treatment for ductal carcinoma in-situ (DCIS) has included lumpectomy and radiotherapy or total mastectomy alone, followed by endocrine therapy. Although outcomes have been excellent, DCIS therapies have recently been scrutinized, as current data suggest that <50% of women develop invasive cancer without treatment.^{1,2} Additionally, there is limited data about intervals between diagnosis and surgery for women undergoing resection of DCIS.^{3,4} As quality measures examining times to treatment are increasingly considered by national accreditation bodies, it is crucial that questions regarding the effect of delays on DCIS outcomes be sufficiently addressed. Therefore, the objectives of our study were to determine whether there is a delay-dependent survival decline for disease that is both clinically and pathologically consistent with DCIS, and to quantify the risk of invasion that women experience with increasing delay to surgery.

Present:

Our study⁵ describes the first reported investigation in women having DCIS that assesses the association between surgical delay and both invasiveness and overall survival using a large, national database while controlling for patient and treatment characteristics. Our data confirm that a delay to surgery for DCIS is associated with a decline in overall survival. Additionally, as delay increases, invasion is increasingly found within the post-excision specimen. This observation is consistent with the fact that at least some DCIS is considered to be a precursor through which neoplastic ductal cells are present but have not yet violated the basement membrane.² Our results are also congruent with existing data for invasive disease showing that women with early stage breast cancer have worse outcomes as surgical delay increases, suggesting that sufficient time may allow tumor spread and worse outcomes.⁴ These findings confirm the legitimacy of the current standard of care and support the role of surgery in DCIS treatment.

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Future:

The questions that our study attempts to answer regarding need for resection of DCIS are also being addressed by several prospective clinical trials. The COMET, LORIS, and LORD trials omit resection, which essentially represents infinite delay to surgery.⁶ Given the debate regarding appropriate treatment of DCIS, the results of these multicenter trials will be extremely valuable and are eagerly anticipated. The data from these trials will be the best we get in the near future, but even these trials may not truly clarify how to distinguish between DCIS that will become invasive, which poses a threat to survival and should be excised, and DCIS that, like atypia, is no more than a marker for risk and can remain unresected. Until we (1) have those trial results and (2) can distinguish these DCIS phenotypes, our article details the most robust population-based data currently in existence, and effectively argues that DCIS should continue to be surgically addressed in a timely manner.

References

1. Elshof LE, Schmidt MK, Rutgers EJ, van Leeuwen FE, Wesseling J, Schaapveld M. Cause-specific Mortality in a Population-based Cohort of 9799 Women Treated for Ductal Carcinoma In Situ. *Annals of surgery*. 2017.
2. Wiechmann L, Kuerer HM. The molecular journey from ductal carcinoma in situ to invasive breast cancer. *Cancer*. 2008;112(10):2130–2142. [PubMed: 18383519]
3. Sue GR, Lannin DR, Killelea B, Tsangaris T, Chagpar AB. Does time to definitive treatment matter in patients with ductal carcinoma in situ? *The American surgeon*. 2013;79(6):561–565. [PubMed: 23711263]
4. Bleicher RJ, Ruth K, Sigurdson ER, et al. Time to Surgery and Breast Cancer Survival in the United States. *JAMA oncology*. 2016;2(3):330–339. [PubMed: 26659430]
5. Ward WH, DeMora L, Handorf E, et al. Preoperative Delays in the Treatment of DCIS and the Associated Incidence of Invasive Breast Cancer. *Ann Surg Oncol*. (2019). 10.1245/s10434-019-07844-4
6. Grimm LJ, Ryser MD, Partridge AH, et al. Surgical Upstaging Rates for Vacuum Assisted Biopsy Proven DCIS: Implications for Active Surveillance Trials. *Annals of surgical oncology*. 2017;24(12):3534–3540. [PubMed: 28795370]