Breast Surgery in the Time of Global Pandemic: Benefits of Same-Day Surgery for Breast Cancer Patients Undergoing Mastectomy with Immediate Reconstruction during COVID-19

Sir:

I read with interest the Viewpoint published in the October 2020 issue by Perez-Alvarez et al.1 describing their preliminary experience with same-day surgery after mastectomy and immediate implant-based reconstruction during the coronavirus disease of 2019 (COVID-19) pandemic. Their group began offering patients same-day surgery in 2018 and began enrolling patients in a prospective clinical trial comparing same-day surgery with inpatient admission in 2019. While not providing extensive details about their protocol and results, they describe an enhanced recovery after anesthesia protocol and the use of intraoperative liposomal bupivacaine blocks to facilitate same-day surgery. They do mention that the majority of these reconstructions were performed in the prepectoral plane, as these patients would be expected to have significantly less immediate postoperative pain. Preliminarily, their results demonstrate no emergency room admissions or readmissions and no increased need for postoperative opioid prescriptions. While these findings have important implications for our general approach to immediate implant-based breast reconstruction, the authors correctly point out that their findings have even more relevance during the COVID-19 pandemic. Same-day surgery reduces strain on hospital resources and staff utilization, both of which are in short supply as the pandemic intensifies. They also cite data from publications looking at same-day surgery for mastectomy alone that demonstrate improved outcomes, decreased utilization of health care resources, and increased patient safety. I pointed out that surgery in the ambulatory surgery center with same-day discharge is almost certainly safer for immunocompromised patients who have or will be receiving chemotherapy, as there will be less exposure to nosocomial infections in the hospital. I concluded that as ambulatory surgery centers are inherently more cost-effective and have a possibly reduced infection rate, shifting surgery to the ambulatory surgery center with same-day discharge will have the most pronounced impact on reducing costs and decreasing utilization of resources during this critical time. Finally, I noted that surgery in an ambulatory surgery center also frees up hospital beds and operating rooms for the more acutely ill. I acknowledge that not all surgeons have access to an ambulatory surgery center where breast reconstruction can be performed. Regardless, I strongly urge surgeons to at least consider same-day discharge after mastectomy and implant-based reconstruction in the hospital during these critical times, as Perez-Alvarez et al. and I have shown that it is safe. I again maintain that admission after mastectomy and immediate prepectoral reconstruction should be the exception and not the rule.

My article discussed the relevance of the findings given the COVID-19 pandemic with regard to cost savings, decreased utilization of health care resources, and increased patient safety. I pointed out that surgery in the ambulatory surgery center with same-day discharge is almost certainly safer for immunocompromised patients who have or will be receiving chemotherapy, as there will be less exposure to nosocomial infections in the hospital. I concluded that as ambulatory surgery centers are inherently more cost-effective and have a possibly reduced infection rate, shifting surgery to the ambulatory surgery center with same-day discharge will have the most pronounced impact on reducing costs and decreasing utilization of resources during this critical time. Finally, I noted that surgery in an ambulatory surgery center also frees up hospital beds and operating rooms for the more acutely ill. I acknowledge that not all surgeons have access to an ambulatory surgery center where breast reconstruction can be performed. Regardless, I strongly urge surgeons to at least consider same-day discharge after mastectomy and implant-based reconstruction in the hospital during these critical times, as Perez-Alvarez et al. and I have shown that it is safe. I again maintain that admission after mastectomy and immediate prepectoral reconstruction should be the exception and not the rule.

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DISCLOSURE

The author has no financial interest to disclose in relation to the content of this communication.

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Reply: Breast Surgery in the Time of Global Pandemic: Benefits of Same-Day Surgery for Breast Cancer Patients Undergoing Mastectomy with Immediate Reconstruction during COVID-19

Sir:

We sincerely appreciate the comments provided by Dr. Jean-Claude Schwartz regarding our publication.3 The budding topic of same-day surgery for mastectomy has certainly gained immense traction given the pandemic and its impact on hospital resource allocation. We acknowledge that overall, our own experiences, previous research, and Dr. Schwartz’s study2 uphold the consistent outcomes of reduced readmissions, reoperations, and postoperative complications following same-day surgery for mastectomy.

Our protocol involves a prospective, single-arm, multi-institutional study that primarily seeks to measure complications, pain, satisfaction, and cost subsequent to same-day surgery for mastectomy with reconstruction. (This trial is registered under the name “Same-Day Discharge after Nipple-sparing Mastectomy or Skin-sparing Mastectomy with Breast Reconstruction,” ClinicalTrials.gov identification no. NCT04596683, https://clinicaltrials.gov/ct2/show/NCT04596683.) Inclusion criteria consist of women with breast cancer electing mastectomy with immediate implant-based reconstruction who are amenable to same-day surgery. Exclusion criteria include active smoking and high-risk comorbidities (e.g., cardiac disease, diabetes, and so on). Distinct from Dr. Schwartz’s article, we opted for the validated BREAST-Q survey to collect data on satisfaction and the standardized American Pain Society survey to evaluate postoperative pain. We have enrolled approximately 40 patients treated by various providers within a single hospital system, albeit all operations have been performed within the hospital operating rooms and not in separate ambulatory surgery centers.

Ideally, randomization would have been the gold standard for reporting on a relationship between same-day surgery and improved outcomes. However, without mitigating difference in cost to the patient and influence on satisfaction for those unhappy with treatment allocation, we felt our chosen research design to be more appropriate as an initial study. We have not encountered a study to date that has randomized patients into same-day surgery for mastectomy. Unless evidence demonstrating potential compromise to clinical equipoise is elucidated, this should be the aim for future studies.

While we believe the primary goal of our research is to demonstrate equal if not improved outcomes and satisfaction for women undergoing same-day surgery for mastectomy with reconstruction, a secondary critical component is cost. Dr. Schwartz comments on the financial benefits to same-day surgery, which is very applicable in the time of SARS-CoV-2. In his study, he emphasizes data demonstrating reduced infection rates to infer cost-effectiveness of same-day surgery for mastectomy.2 While this is a notable assumption, it is not direct evidence. With access to billing information for cohorts that have been either discharged from same-day surgery or admitted following mastectomy, we are conducting a thorough cost analysis of the procedures. In addition, all procedures are performed in the same settings with similar staff and protocols, further reducing potential confounders to our results.

Similar to the evolution of reduced length of stay following the transition from radical to simple mastectomy,4 the recent advancements in anesthetic protocols and techniques for breast reconstruction serve as the catalyst for change in the standard timing of hospital-level treatment. We completely agree with Dr. Schwartz’s last comment, that admission following mastectomy should eventually be the exception, rather than the standard. Thorough research into the ideal characteristics of patients and resources required to appropriately educate and support same-day surgery for mastectomy is critical. Nonetheless, studies such as Dr. Schwartz’s2 and ours1 promote the transition to same-day surgery as a means of improved quality, satisfaction, and cost of reconstruction for breast cancer patients.

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