Reply: Should We Stick with Surgical Glues? The Incidence of Dermatitis after 2-Octyl Cyanoacrylate Exposure in 102 Consecutive Breast Cases

Sirs:

We greatly appreciate the comments on our article “Should We Stick with Surgical Glues? The Incidence of Dermatitis after 2-Octyl Cyanoacrylate Exposure in 102 Consecutive Breast Cases” and would like to thank the authors for sharing their experience with Dermabond Prineo (Ethicon, Inc., Somerville, N.J.). The inclusion of a self-adhering mesh in the product makes it unique as compared to the cyanoacrylate agents we studied. Despite this, it is most likely the liquid component (the 2-octyl cyanoacrylate) that is causing the “extreme reactions” noted. Allergy testing would be warranted to verify the true allergen in this case.

The authors noted that only one of the three patients with reactions had a known allergy to tapes, but that the other two had no known history of allergy to cyanoacrylate, formaldehyde, tapes, or adhesives. In preparing our own study, we were surprised to learn how commonplace cyanoacrylate is in everyday consumer products (e.g., lash extension glue, artificial nail glue, wire wrapping, over-the-counter cyanoacrylate wound dressings, household glues). Many patients may not be aware of or recall prior reactions to such products. In addition, although we were unable to demonstrate a statistical significance in our study, we believe repeated exposures increase the likelihood of a reaction to surgical glue. Perhaps repeated prior exposures to cosmetic products (e.g., lashes and nails) sensitized the patients to Prineo.

With regard to patch testing before the use of Prineo on patients, this raises some practical considerations. Given that there would be a risk of sensitizing with a patch test because of the theoretical additional exposure, albeit small, it may be worth selectively patch testing patients with prior exposure to such cosmetic products and other cyanoacrylate-containing products before applying Prineo, Dermabond, Liquiband (Advanced Medical Solutions Limited, Winsford, Cheshire, United Kingdom), and others. The cost of each individual-use vial used for each patient’s patch test is quite high. Using an alternative to surgical grade cyanoacrylate, such as can be found over the counter in pharmacies for minor wounds, would be a less expensive option but may be unreliable. Alternatively, the risks could be relayed to the patient for a joint decision on whether to test the surgical glue or not.

This is certainly an area warranting further research. We appreciate the authors sharing their experience with reactions to Prineo for plastic surgeons worldwide.

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DISCLOSURE

The authors have no financial disclosures to report.

REFERENCE


Direct Prepectoral Implant-Based Reconstruction in the COVID Era

Sirs:

I read with interest the article by Nealon et al., which demonstrates that prepectoral direct implant-based breast reconstruction has good outcomes. Our own experience and the evidence in the literature...
demonstrate that direct prepectoral implant-based breast reconstruction is safe, with low complication rates, and eliminates the problems of animation and pain related to traditional submuscular implant reconstruction. Traditionally, one-stage implant-based breast reconstruction is adopted in the United Kingdom and Europe, whereas two-stage implant-based reconstruction is carried out in the United States.

With the onset of the coronavirus disease 2019 (COVID-19) pandemic, we may need to modify our working practices and consider one-stage direct implant-based breast reconstruction in suitable patients (Fig. 1). This technique would offer less direct patient contact and fewer clinical visits and would avoid the need to expand the implant. It may be time to consider the avoidance of a mesh to minimize the risk of introduction of a foreign body in the present COVID-19 climate, and this would be facilitated if we continue to operate in the oncoplastic plane. A global audit would enable us to define the risk factors and define the safety in the COVID-19 era.

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REFERENCES

Reply: Prepectoral Direct-to-Implant Breast Reconstruction: Safety Outcome Endpoints and Delineation of Risk Factors
Sir:

The commentary made by Dr. Vidya1 with regard to the use of prepectoral single-stage implant placement for oncologic reconstruction during the coronavirus disease 2019 (COVID-19) crisis is particularly timely, given the need for deliberate resource allocation and minimization of patient contact.2 Prepectoral direct-to-implant breast reconstruction remains a safe, efficient method of implant placement for the correction of mastectomy defect during the peak of COVID-19 cases, thereby obviating the need for secondary implant-exchange procedures and tissue expansion.25 Furthermore, in the time interval after the peak of COVID-19 cases, there is likely to be a tenable need for the optimization of surgical workflow to accommodate the anticipated backlog in breast oncologic and reconstruction cases. To meet the growing demand for implant-based breast reconstruction at our institution, we have implemented a novel same-day mastectomy and immediate direct-to-implant breast reconstruction protocol.

This same-day reconstruction protocol incorporates virtual patient telemedicine services during preoperative consultation to limit patient exposure and reduce resource use at the hospital level during in-person clinical visits (Fig. 1, left). On the day of surgery, plastic surgery and surgical oncology services operate in tandem with anesthesiology through a standardized perioperative pathway to minimize operating time, with the use of prepectoral implant placement to decrease soft-tissue dissection and postoperative pain (Fig. 1, center). Patients are discharged on the day of surgery, with the use of visiting nurse services to assist with drain removal and virtual postoperative evaluation at 1-day, 1-week, and 2-week intervals to assess for postoperative complications (i.e., hematoma and surgical-site infection) (Fig. 1, right). To date, patients enrolled in the same-day breast reconstruction pathway have not had postoperative complications or readmissions, and have thus decreased time to discharge and avoided overuse of valuable inpatient hospital beds.

The success of prepectoral direct-to-implant reconstruction largely relies on appropriate patient selection to ensure adequate mastectomy skin flap thickness to accommodate the mechanical tension conferred by implant placement in the prepectoral plane. Shared clinical decision-making is necessary to balance soft-tissue reinforcement using surgical mesh with the added risk of foreign body insertion. We routinely use acellular dermal matrix to reinforce the inferior pole, which minimizes wound breakdown and tissue necrosis that would likely require implant removal and reoperation.3 In our clinical experience, successful same-day reconstruction requires patients with few comorbidities and strong social support networks, while limiting the number of prophylactic contralateral procedures performed.

Importantly, the use of prepectoral reconstruction not only confers safe definitive correction of mastectomy defects, it can also be used as a bridge to subsequent autologous reconstruction as permitted by...