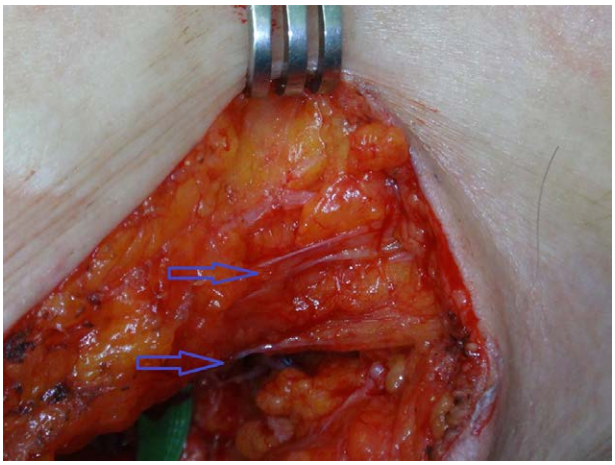

Fig. 1. Intraoperative photograph showing intact blue-stained proximal arm lymphatics (*arrows*) after axillary clearance.

Third, the median follow-up was 11.4 months (range, 6.2 to 26.9 months), which is relatively short. Although many patients with lymphedema are usually diagnosed during the first 24 months after surgery, the highest estimation of lymphedema is usually between 30 months and 60 months after breast cancer treatment.[3]

We congratulate the authors on their great efforts. Nevertheless, we need better and well-controlled data with big study sample sizes and sufficient follow-up time to evaluate the impact of immediate lymphatic reconstruction. In addition, tracing and analyzing the risk factors of patients who develop lymphedema could help to define the indication of immediate lymphatic reconstruction following axillary lymph node dissection.

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DISCLOSURE

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Reply: Evaluating the Impact of Immediate Lymphatic Reconstruction for the Surgical Prevention of Lymphedema

We would like to thank Dr. Masià and colleagues for their interest in our article[1] and insightful remarks. We are encouraged by their dedication to the surgical prevention of lymphedema and are grateful for the opportunity to respond to points raised.

Masià and colleagues comment that indications for immediate lymphatic reconstruction (ILR) should be more selective. While the majority of women undergoing axillary lymph node dissection (ALND) will not develop lymphedema, there is no good way to reliably predict individual risk of developing lymphedema apart from known risk factors. The top two risk factors for breast cancer–related lymphedema are ALND and regional lymph node radiation.[2] In our study, 93% of patients undergoing ALND received adjuvant radiotherapy, and of those, 88% received regional lymph node radiation.[1] This study group therefore constitutes the highest-risk cohort for development of breast cancer–related lymphedema.

The authors utilize indocyanine green lymphography intraoperatively to assess functional lymphatic drainage as a marker for patients at high risk of developing lymphedema. While an interesting idea, the technique employed is not standardized, thereby precluding broadened application and real-time utility. For example, how many intact lymphatic channels need to be visualized for the authors to feel comfortable stating adequate arm drainage is present and ILR is not needed? Similarly, while axillary reverse mapping is a powerful technique, the risk of residual occult malignancy in the axilla questions its oncologic safety.[3] An ongoing global clinical trial (ClinicalTrials.gov registration no. NCT03927027) is further investigating its clinical safety.[4]

We would like to clarify that the 65 patients excluded from our study were not aborted cases. Of these, 86% (56 of 65 patients) were excluded because of inadequate follow-up. Only 9% of ILR cases were aborted. We were always able to identify arm lymphatics.[1] In four cases, ILR was aborted because arm lymphatics were intact. Finally, the authors discuss the role of isosulfan blue for lymphatic visualization. We want to highlight the power of fluorescein isothiocyanate, as it allows for simultaneous lymphatic visualization and dissection while providing depth of penetration.[5]

The authors propose performing a prophylactic lymphovenous bypass 1 to 3 cm outside of the axilla to avoid the effects of postoperative radiation on the anastomosis. Per standard of care, after a level I and II nodal dissection, adjuvant radiation is not delivered to those fields. Instead, it is usually the tangential chest wall radiation that impacts the anastomotic site. This radiation field encompasses an area 3 cm distal to the axilla.

We acknowledge our lack of long-term patient follow-up. We employed rigorous criteria that excluded any patient without a minimum of 6 months of follow-up. Maintaining these strict standards, we are currently re-reviewing our data set and look forward to reporting long-term results.

In summary, we would like to thank Masià and colleagues for their cogent remarks. It is our current belief that certain lymphatic anatomic variations are likely to predispose patients to the development of lymphedema.[6] An improved understanding of baseline lymphatic anatomy will explain why the majority of women who undergo ALND and regional lymph node radiation do not develop lymphedema and define which patients will benefit most from ILR.

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A 15-Year Review of Clinical Practice Patterns in Carpal Tunnel Syndrome Based on Continuous Certification by the American Board of Plastic Surgery

The recent article by Sasson et al.,[1] entitled "A 15-Year Review of Clinical Practice Patterns in Carpal Tunnel Syndrome Based on Continuous Certification by the American Board of Plastic Surgery," is both thorough and compelling. However, one statement merits further comment: "In breaking with evidence-based recommendations, these studies," referring to electrodiagnostic tests and imaging with magnetic resonance or ultrasound, "were performed on the majority of patients. Fear of medicolegal liability and insurance requirements for preauthorization are possible explanations for this deviation."

An alternate explanation for frequent use of objective tests in diagnosing carpal tunnel syndrome, instead of nonadherence to society recommendations, acquiescence to those of insurance companies, or lawsuit avoidance, may simply be that board-certified plastic surgeons keep up with advances in the field. The authors of this article have overlooked several recent studies showing the highest possible level of evidence confirming the accuracy of ultrasound in carpal tunnel syndrome, its cost effectiveness, and recent recommendations on how to combine it with the pre-existing standard of electrodiagnosis.[2–4] Furthermore, while physical examination improvisations are desirable, recent articles on the "scratch collapse test" have failed to confirm its suitability as a technique for widespread application.[5] Unlike the scratch collapse test, monofilament testing, two-point discrimination, and other bedside tests, nerve conduction studies and ultrasound are well standardized and require neither active participation by patients