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LETTER TO EDITOR/LED REPLY

Reply to Letter: Comparison of Histological Skin Changes After Massive Weight Loss in Post-Bariatric and Non-Bariatric Patients

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Dear Sir,

We have read with great interest the letter to the editor in this issue by Tambasco et al. responding to our study [1]. Our prospective study compared epidermal thickness and collagen and elastin fiber content in 80 skin biopsies obtained from body-contouring surgery (BCS) procedures performed on patients who experienced massive weight loss (MWL), defined as more than 50% of excess weight loss (%EWL). This cohort was divided between those undergoing surgical MWL (SMWL), from whom we obtained 40 biopsies, and those experiencing non-surgical MWL (NSMWL), also contributing 40 biopsies. For each group, 20 biopsies were obtained from abdominoplasties and 20 from breast reductions.

In their letter, Tambasco et al. referenced several studies conducted a decade ago by their research group on a broad spectrum of tissue samples. These ranged from the effects of biliopancreatic diversion (BPD) in seven patients to a pilot study on micro- and macroscopic tissue modifications and post-abdominoplasty wound dehiscence between BPD (42 patients) and Roux-en-Y Gastric Bypass (RYGB) (37 patients) [2–7]. All these well-conducted studies have contributed valuable scientific knowledge to our community. Tambasco et al. highlighted that our manuscript did not include multiple linear regression analyses of critical skin structure-associated outcomes based on the type of weight loss surgical procedure, recommending this as an avenue for future research.

We acknowledge the importance of this suggestion. Correcting for confounding factors is crucial and should always be conducted with a comprehensive understanding of the study's power. Given the low occurrence of RYGB and one-anastomosis gastric bypass (OAGB) surgery types in our study (31.2% and 15.8%, respectively), we combined all surgery types into a single category (surgical weight loss for laparoscopic sleeve gastrectomy, RYGB, and OAGB) to ensure statistical power and meaningful analysis. Although each procedure has distinct mechanisms, our primary interest was in determining whether differences exist between SMWL and NSMWL across different skin types (abdominal and breast). We adjusted for the effects of age, gender, type of weight loss intervention, type of body contour surgery, %EWL, time elapsed since the intervention, and post-BCS complications on elastic fibers proportions, collagen fibers proportion, and epidermal thickness. We agree that future studies should include a wider variety of surgery types to investigate their specific effects on outcomes further and to determine whether confounding factors or effect modifications exist within the types of surgical weight loss procedures. This approach is contingent upon the possibility and justification of performing such statistical analyses.

We look forward to new collaborations and the opportunity to expand our knowledge in the field of post-bariatric body-contouring surgery.

On behalf of all the authors,
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Declarations

Ethics Approval This article does not contain any studies with human participants or animals performed by any of the authors.

Consent to Participate Informed consent does not apply.

Competing Interests The authors declare that they have no competing interests.

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