patient satisfaction (93 percent) reflects the natural and aesthetically pleasing result.

Fenestration labiaplasty was described in 2014 by Ostrzenski.4 With this technique, reductions in both height and length of the labia minora are obtained. On determining the size of the labia minora volume being reduced, the base of the lower margin of incision is determined, and outlining of the amount of tissue being removed is marked in the shape of a “bicycle helmet” within the anterior labial surface. In this process, the arch of the new labium is also determined. The resection in the bicycle helmet shape is accomplished and excised, and an inferior flap transposition is performed. In the three patients that underwent the procedure, symmetry was established, the natural color and contour of the labium minus was preserved, and a natural appearance of the labium frenulum (posterior edge of the fossa navicularis) was restored or created. All patients experienced meaningful improvement in body image and self-confidence, with improvement of social openness and increase of intimate interaction.

DOI: 10.1097/PRS.0000000000011776

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DISCLOSURE

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

REFERENCES


Reply: Vaginal Labiaplasty: Current Practices and a Simplified Classification System for Labial Protrusion

Sir:

We read with great interest the letter by Dr. Oranges in response1 to our article, “Vaginal Labiaplasty: Current Practices and a Simplified Classification System for Labial Protrusion.”2 Dr. Oranges reports on two techniques that were not identified in our search of the literature: custom flask labiaplasty and fenestration labiaplasty.3 Despite our best efforts to capture all currently available techniques for vaginal labiaplasty, these techniques were not captured using our methods and search algorithm: ((labiaplasty) OR (labioplasty) OR (labial hypertrophy)) AND ((etiology) OR (epidemiology) OR (classification) OR (indications) OR (treatment)).

Custom flask labiaplasty was described by Gonzalez et al. in 2013. The authors performed a retrospective review4 on a total of 50 patients. Excess skin was resected in a “flask pattern,” and superiorly and inferiorly based flaps were designed to reapproximate the labia minora. Mean surgical time was 98 minutes. The average patient age was 37.7 years. Eight of the patients underwent other genital cosmetic surgery simultaneously—five had clitoral unhooding procedures, one had a labia majora reduction, one had vaginoplasty with clitoral unhooding, and one had vaginoplasty with labia majora reduction. Only one postoperative complication was noted—labia minora suture line dehiscence that occurred at the junction of the superior and inferior flaps. Of the 27 patients who provided postoperative follow-up information for the study, 25 (93 percent) were satisfied or very satisfied with the results of their surgery.

Fenestration labioreduction was described by Ostrzenski in 2014,5 but the report included only three patients. A “helmet shape” excision of tissue was performed, leaving a superiorly based flap that was then reapproximated to the base of the labium minus. Mean surgical time was 36 minutes. The average age of the patients was 23.7 years. Surgical outcomes exceeded subjects’ aesthetic expectations in all subjects. Although there were no intraoperative, short-, or long-term complications noted in this study, it should be noted that fenestration labioreduction creates superiorly based flaps that would likely rely only on the smaller, anterior labial artery for perfusion. This technique may increase the risk of wound dehiscence as suggested by new anatomical studies on the vascular anatomy of the labia minora.6

To date, there are insufficient data to recommend one labiaplasty procedure over others. Therefore, the chosen technique should be based on a careful consideration of the desired outcome weighted with the individual patient’s anatomy and a meticulous examination of the available and relevant techniques. The procedures described by Ostrzenski and Gonzales et al. do represent two techniques that should be included among those used by aesthetic and reconstructive plastic surgeons. Further research will better define best practices in vaginal labiaplasty.

DOI: 10.1097/PRS.000000000001805

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Sir:

Wang et al. recently published an article about the paracrine effect of adipose-derived stem cell supernatant on reperfusion-induced microcirculatory alterations. They collected the supernatant of cultured adipose-derived stem cells and quantitatively measured eight popular cytokines. They examined the effect of the supernatant on the reperfusion-induced microcirculatory alterations in the vascular pedicle of isolated rat cremaster muscles subjected to 4 hours of ischemia followed by 2 hours of reperfusion. They discovered that the supernatant had eliminated the early phase of ischemia-reperfusion alterations.

The main putative mechanisms in ischemia-reperfusion injury identified at the tissue level involved leukocyte-endothelium interactions, reactive oxygen species, and the complement system. At the cell level, the main damage was described to be on the mitochondria. However, it has become evident that these fundamental biological systems are controlled by many interrelated pathways, including the initiating and cascading events.2

Adipose-derived stem cells were reported to secrete plenty of cytokines and growth factors.3 However, the level of secretion altered according to the environment. Thus, local application of adipose-derived stem cells in vivo would change the paracrine behavior of adipose-derived stem cells. In our previous studies, we observed that the transforming growth factor-β levels had increased in the adipose-derived stem cell group in an ischemia-reperfusion flap model.2 In contrast, transforming growth factor-β levels had decreased in the adipose-derived stem cell group in a tendon healing model.4 The authors have used the supernatant of adipose-derived stem cells harvested from normal culture medium and have measured the reperfusion-induced alterations at 2 hours after reperfusion. It was an excellent method to determine the effects on the very early phase of ischemia-reperfusion injury; however, it was a model of a cytokine cocktail. The half-lives of these cytokines were variably short and thus might not have sufficient effect for cascading events. It was stated that the reperfusion injury had been initiated in the first few minutes of reperfusion; however, the ensuing alterations and prevention of the prolonged damage would be more important. I would like to learn the authors’ opinion about chronologic reperfusion alterations after the sixth hour or on the first postreperfusion day.

The paracrine effects of adipose-derived stem cells were indicated to be much more than the direct effects. We have observed in different studies that the direct effects of adipose-derived stem cells were between 10 and 28 percent; thus, the paracrine, indirect effects were noted to be 70 to 90 percent.2,4 The viability of transplanted adipose-derived stem cells would lead to this continuous paracrine effect and would control the cascade in every step by down- and up-regulation. The adipose-derived stem cell supernatant would help with some protection of the tissue from the reperfusion injury; however, it would not be as effective as the local transplantation of adipose-derived stem cells to the tissue. I would be glad if the authors would compare these two, instead of comparing the intraarterial/intravenous applications of adipose-derived stem cells with the supernatant. I would like to thank the authors for the excellent study and for sharing their experience.

DOI: 10.1097/PRS.0000000000001764

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REFERENCES

DISCLOSURE
The authors have no financial interest to declare in relation to the content of this communication.