The studies completed by Kosins et al.[2,3] are well designed and serve as invaluable contributions to the rhinoplasty literature. Such prospective evaluations are essential to the advancement of nasal surgery. The authors demonstrated alar crease and subnasale elevation to be primarily responsible for the plunging tip illusion. As ethnic variations of the depressor septi nasi muscle are well reported, caution should be exercised when declaring surgical dogma from a single study series of 25 women (ethnicity undisclosed).[2,3]

Animation deformities of the nasal base extend well beyond the plunging tip. As we reported in our review, orbicularis oris and depressor septi nasi fibers have been consistently identified to traverse the columella with insertion at the medial crura.[4,5] Plausibly, contracture of nasal base musculature may displace the mobile medial crura, leading to animation deformity. Histologic studies would support such clinical intuition.[6]

Disruption of muscle fiber insertion may occur during open-approach rhinoplasty as soft-tissue is swept away from the medial crura. Dissection toward the caudal septum may further disrupt responsible fibers. Kosins et al. reported that 24 of their 25 patients underwent open-approach rhinoplasty and 23 of 25 underwent caudal septal excisions.[3] The conclusion that increased tip rotation treated the illusion is logical and validated by their study results. However, contributing to the resolution of animation deformity may have been surgical approach and ensuing septal dissection.

In conclusion, our review only stresses the importance of studies such as that by Kosins et al. The plunging tip may often be an illusion, but this does not necessarily annul clinical relevancy of columella musculature. Surgeons should individualize treatment based on patient desires and clinical suspicion, with the understanding that animation deformity is not just the tip.

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Oil Cysts after Breast Augmentation with Autologous Fat Grafting

Sir:

We read with great interest the article entitled "Parasternal Infiltration Composite Breast Augmentation" by Bravo.[1] The authors concluded that parasternal fat grafting performed simultaneously with breast augmentation is a safe procedure, and provides a valuable cosmetic advantage by improving the medial transition zone of the breast implant with the presternal area. It prevents a "separated-breasts" deformity, which may produce unnatural results in implant-based breast augmentations, especially in thin patients. In this study, autologous adipose tissue was shown to ensure good results even for aesthetic purposes.[1] No cysts or fat necroses were observed, and the authors hypothesized that this could be attributable to the low volume of fat used (60 to 140 cc).

There has been a recent surge in the popularity of fat grafting for volume for aesthetic reasons, because autologous fat has many of the properties of an ideal filler. In our clinic, over the past 10 years, we have performed 348 autologous fat grafting procedures in a total of 242 women. The average volume of fat injected per patient was 136 cc, usually performed in two or three stages. During an average follow-up of 26.4 months, ultrasonography and mammography identified cyst formation in 15.4 percent of the patients. Kim et al. reported similar outcomes in their retrospective review performed on 102 patients who had secondary fat grafting after breast reconstruction.[2] Oil cysts are the worst outcome of fat grafting and must be avoided by standardizing meticulous injection techniques.[3] Mammographic appearance is often represented by eggshell-like macrocalcifications with a liquid content (Fig. 1). The evaluation by magnetic resonance imaging can be useful, but it belongs in a second-stage evaluation.

Largo et al. performed a systematic review evaluating efficacy, safety, and complications of autologous fat grafting to healthy breast tissue.[4] A total of 36 articles involving 1453 patients with a mean follow-up period of 16.3 months were included. The authors observed an overall 16 percent prevalence of complications, calculated from the articles included in their review,

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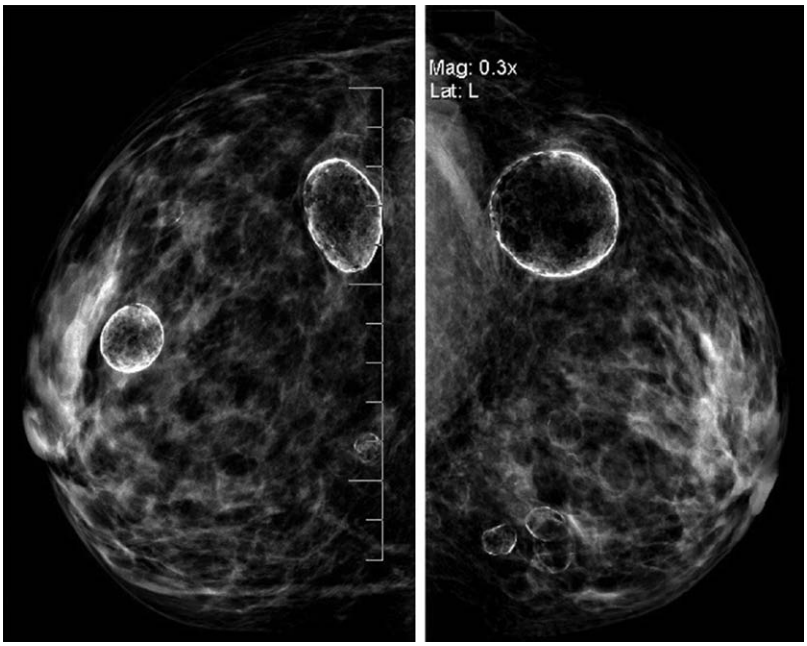

Fig. 1. Mammographic images obtained 1 year after fat grafting.

including palpable nodules (fat necrosis, cyst formation, and calcification), infection, and low volume gain.

Rubin et al. studied mammographic changes in 27 women who were treated with fat grafting to the breast, including admixing of autologous adipose stem cells with the fat graft, for cosmetic augmentation.[5] The authors observed an oil cyst formation rate of 25.5 percent. The average volume of fat injected per patient was 526.5 cc.

In conclusion, we can say that autologous fat grafting is a safe procedure, and the minor complication rate generally ranges from 0 to 25.5 percent, depending on the amount of injected adipose tissue. Severe complications such as pneumothorax and septicemia appear to be very rare following autologous fat grafting in the breast, and we think that these could be mainly related to iatrogenic errors during the procedure.

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