As reconstructive or aesthetic surgeons, so much of what we do relies on the ability to maintain appropriate soft tissue perfusion. The consequences of poor tissue perfusion, whether performing a free fibula reconstruction or a facelift, can be devastating. This is why new technologies, such as the SPY Elite Intraoperative perfusion Assessment System (LifeCell Corporation, Branchburg, NJ) are so useful, because they provide us with objective real-time perfusion information. Intraoperative angiography was used in this study to shed some light on an area of much debate: the impact of implant placement to nipple perfusion during augmentation-mastopexy. The major concern that the author wished to address was that of potentially causing nipple ischemia when repositioning the nipple-areolar complex (NAC) and then placing an implant. This is an important concern, since even one patient with nipple loss following elective cosmetic breast surgery is one too many. The data here demonstrated that there was not a significant reduction in NAC perfusion when an implant was inflated simultaneously during a vertical mammoplasty with a medial pedicle technique. While the data was collective prospectively, this was collected on a series of patients that the author, with his experience, must have already deemed to be good candidates for a simultaneous augmentation-mastopexy. The data confirmed his clinical judgment in this series: however, there are still some patients with extreme ptosis who are not candidates for this technique and for whom staging is always a safer alternative.

Intraoperative angiography provides objective data on tissue perfusion that can be helpful clinically and also academically. For it to be clinically beneficial, there needs to be a back-up plan in case poor perfusion is observed. For example, if mastectomy skin necrosis is observed, the ability to debride the skin and replace it with more flap skin in autologous reconstruction will help reduce mastectomy flap complications. When considering NAC perfusion following augmentation-mastopexy, there are three variables that could potentially compromise flow: (1) pedicle design; (2) pocket creation; and (3) compression effect of the implant. In this series the author has shown that the compression effect of the implant did not impact nipple perfusion. However, designing a well-vascularized pedicle and creating a safe pocket (submuscular in this series) are also equally important in maintaining nipple viability. These were all done prior to the initial angiography so, other than demonstrating adequate nipple perfusion after dissection, these data can’t demonstrate whether those maneuvers impacted nipple perfusion. It would be interesting to know whether submuscular versus subglandular pocket dissection impacted nipple perfusion following mastopexy: however, this would be a difficult study to initiate.

The reason for using intraoperative angiography in this study was mainly academic, in that the author wanted to evaluate nipple perfusion prior to and following implant inflation. The indications for using intraoperative angiography in breast reductions or augmentation-mastopexy patients are limited. It might be helpful to decide between nipple preservation versus amputation in extremely large reductions if the keyhole incision has not been performed, or can also be used to evaluate for potential fat necrosis. However, most of
the time if a nipple appears dusky or poorly perfused following nipple repositioning, the “damage” has already been done, and other than loosely closing or not inflating the implant as much, additional perfusion data is not as helpful.

The debate over augmentation-mastopexy will likely continue due to the conflicted nature of this procedure. The author is to be congratulated in that this paper does provide some confirmatory data on the preservation of nipple perfusion with implant inflation. He has also nicely used new technology to answer old questions. As always, appropriate patient selection, choosing the right technique, and adhering to basic principles will reduce complications and improve outcomes, which is ultimately what we are all trying to achieve.

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**REFERENCE**