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Fat Grafting Revisited

ASPS' Fat Graft Task Force updates position on safety of autologous fat grafting

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NATIONAL REPORT ♦ For more than 20 years, the plastic surgery world has been at odds with the issue of safety and fat grafting procedures commonly used in breast augmentation and reconstructive surgery. Might fat grafting compromise breast cancer detection and result in potentially catastrophic sequelae in patients? To answer this question, the Fat Graft Task Force of the American Society of Plastic Surgeons (ASPS) recently convened, and now reports that there is no indication that fat grafting is an unsafe procedure. According to one expert, this new conventional wisdom should allow plastic surgeons to re-embrace this surgical approach and hopefully answer the critics long opposed to it.

TRIALS STILL NEEDED “In review of the multitude of evidence-based results of clinical trials, case series and reports, the Task Force found that there is no evidence that indicates that fat grafting is an unsafe procedure,” says Sydney



Dr. Coleman

R. Coleman, M.D., of Tribeca Plastic Surgery, New York, NY, and member of the Fat Graft Task Force. “Nevertheless, the report did say that

in order for the Task Force to make concrete recommendations for or against fat grafting for specific applications, high-quality randomized controlled trials would be needed to further evaluate safety and efficacy.”

Most surgeons would agree that autologous transplantation has always been the preferred route in plastic

surgery. However, autologous fat grafting began to be frowned upon and cast into a negative light around the same time as the rise in the popularity of silicone implants in the 1980s. This was partly due to a growing school of thought that fat grafting was potentially dangerous, as the grafted fat could possibly obscure a breast cancer, thus deeming the procedure unsafe. However, according to Dr. Coleman, this thinking was not backed by any scientific rationale.

“I think that, back then, this line of thinking was in no small part influenced by the plastic surgeons who were performing silicone implantations and maybe even the manufacturers of the implants. The scare worked and it made fat grafting to the breast something you could not even talk about for almost 20 years,” Dr. Coleman tells *Cosmetic Surgery Times*.

For the most part, the extreme polarization of fat grafting has now changed as the procedure is experiencing a popular resurgence. According to Dr. Coleman, this resurgence is not only fueled by the efficacy of the procedure but also by the admission from radiologists that it is much easier to see calcifications in a breast that has fat grafting compared to a breast that has silicone implants — essentially refuting the previous concern.

“At the present time, all of the evidence is indicating that there is no reason to think that there should be an increase in incidence or recurrence rates of cancers and there is absolutely no indication that fat grafting is an unsafe procedure,” Dr. Coleman states. “Furthermore, the

stem cells that can be found in the grafted autologous fat tissue appear to be a non-issue, as stem cells that have not been cultured have never been associated with cancers.”

EU LOOKING BACK Some leading European plastic surgeons, who have performed thousands of fat grafting procedures, have begun to do retrospective studies investigating whether there is an increased incidence or recurrence in breast cancers in their large patient series. To date, however, no negative series or trends have been identified, which supports the findings of the Task Force. “I believe that we, as medical professionals, need to pay attention to dogma and not let non-evidence-based pronouncements and scare tactics completely overshadow rational approaches,” he says.

That said, fat grafting is not for every patient and, according to Dr. Coleman, the procedure is not going to replace breast implants, especially when large breasts are the intended aesthetic outcome. Not only can fat grafting take a considerable amount of time to perform, but achieving more than one cup size in a single procedure can be very challenging.

PATIENT-DEPENDENT

INDICATION “Most of the time, the women that come in and want big breasts typically do not have a lot of fat. Therefore, the ideal patient is someone who has not had liposuction and who has enough fat in her love handles or thighs that she can easily lose, say, a liter to a liter and a half of fat, which you can process and put into the breast,” Dr. Coleman notes.

Challenging cases are those patients with double A or small A cup sizes because their envelope is not very large and there are limits to how much fat can be placed in it. According to Dr. Coleman, the original cup size of the patient is key in determining procedure success. A normal size A cup can be taken very easily to a B cup; however, a B to C cup or C to D cup can be difficult to achieve with fat grafting.

“I usually discourage patients who start out with a C cup or larger and desire larger breasts. In these cases, I recommend that they have breast implants,” Dr. Coleman says.

Overfilling the envelope will invariably cause adipocyte death, as the blood supply will likely not be able to support the newly grafted fat tissue. Over time, however, neovascularization will support the new tissue and, if properly spaced apart, multiple fat grafting procedures could be performed to further increase cup size.

“This is one of the great advantages of fat grafting because you can start out by putting in a little bit of fat tissue and, over time, increase the cup size until the patient is satisfied. However, I usually only perform a single procedure in my patients because they have concrete expectations of how big they would like their breasts to be. Nevertheless, larger cup sizes can be achieved in case they want to opt for larger cup sizes however the surgeon must psychologically prepare the patient for potential multiple procedures.” ♦