

AN ALTERNATIVE TO SUSPENSION THREADS

The concept of suspending and lifting tissue using suspension threads originated in ancient Egypt, where golden threads were used under the skin to obtain a little inflammatory tightening. It is rumored that these gold threads may have been the source of Cleopatra's beauty.

Late in the 20th century, the use of gold threads resurfaced in Russia, Asia, and Europe. During the late 1990s-early 2000s, the use of threadlifting boomed, then crashed, due to thread breakage, 'cheese-wiring' of the sutures through soft tissue and skin, and lack of result longevity. At a meeting of ASAPS in 1998, 65% of those surveyed stated they thought there were more problems with threads than benefits.

While the concept of suspension threads is very attractive – subcutaneous placement under local anesthesia with very little down time – each iteration has failed to prove lasting value to the physician and the patient.

Three factors contribute to this problem:

1. 'Cheese-wiring' or cutting through skin or soft tissue by the sutures following placement. All soft tissue can be transected with sutures, especially stiff sutures, due to animation and muscular action in the treatment region.
2. Breakage of the suture, especially barbed suture, is not uncommon. There is a weak point at the base of each barb where the suture diameter is quite narrow. With routine facial expressions, direct trauma, or other manipulation of the treated area, tension on the suture can cause it to fail.

3. Bunching, wrinkling, or dimpling of the soft tissue and skin is not uncommon when a poor candidate is treated. Lack of duration of effect leading to disappointment in either short-term or long term outcome is the benchmark for the sustainability of new ideas.

Because of the shortcomings of suture based suspension methods, I began in 2009 to research the possibility of creating a soft tissue support system that would act in a similar manner. Using autologous tissue manipulation with a radiofrequency device, the premise would be to create both skin surface area contraction as well as directional molding of superficial soft tissue.

First, the basic cause of 'skin' laxity associated with aging needed to be figured out.

Simple histology provided no clues as to the aging process of soft tissue. Therefore I decided to look at soft tissue of volunteers of different ages using the scanning electron

microscope. People's skin and the underlying adherent soft tissue act as a unit; perhaps by causing the soft tissue mass to shrink, the overlying skin would follow.

While loss of bone and muscle certainly contribute to the aged appearance of many body parts, the skin itself should not take the blame for a region that has started looking old or pendulous. Perhaps if the underlying structure could be restored as a framework for the skin to rest upon, the improvement could be achieved in a manner similar to that of collagen suspension threads – without cheese wiring, breakage, or lack

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HIGHLIGHTS OF THE DAY

Top 10 Tips For Skin Resurfacing

Time 7:40am
Suzan Obagi, MD

Update On Aging Knees, Options For Treatment

Time 7:50am
Diane Duncan, MD

10 Ways Your Staff Can Credential Your Business

Time 8:30am
Jay Shorr & Mara Shorr

Body Contouring & Gluteal Fat Grafting: Tips And Pearls

Time 9:10am
Arturo Ramirez-Montanana, MD

Using Sizers In Every Breast Case Including Primary Breast Augmentation

Time 9:30am
Adam Rubinstein, MD

Radio Frequency Minimal Incision Breast Lift For Mild To Moderate Ptosis

Time 10:10am
Barry DiBernardo, MD

Top 10 Mistakes That Lead To Lawsuits

Time 10:15am
Michael Sacopolos, JD

Top 10 Tips For More Effective Perioral Rejuvenation

Time 11:15am
S. Randolph Walmdan, MD

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What Twitter said...

“Packed house at the #Eclipse workshop at #VCS2017 to learn an integrated approach to treating pigment highlighting #dEpPatch Mask.” @EclipseAesth

“Stop by Booth #202 @VCS2017 today and come say hi! #VCS2017 #bellafill #smilelines #acnescars #fiveyearfiller #Vegas” @Bellafill

“At #VCS2017? Stop by booth #607 and say hi to Tara! @VCS2017” @ReachLocal

“Love these guys.....@zосkinhealth” @WENDYLEWISCO

“@nellydevuyst is 100% compatible with all medical procedures! Visit us at booth#411 @VCS2017 #vcs2017 #plasticsurgery #cosmeticsurgery” @Derme_Co

“Next presentation is on disinifying your practice. Sounds very similar to stuff Jason Friedman of cx formula teaches. We'll see. #VCS2017” @TheContentKing7

“Increase your revenue with the Sheerwave IPL360 at booth#411 @VCS2017 #VCS2017 #plasticsurgery #cosmeticsurgery #laser” @Derme_Co

“Moderating with esteemed facial plastic surgeon, Harold J. Kaplan, MD FACS #vcs2017 <https://www.instagram.com/p/BVFjyxAhA-O/>” @LisaMarieWark

“Do you have questions on #CoolSculpting? Our #CoolSculptingPro team is here at #VCS2017 to answer them!” @CoolSculpting

of a sustained response. The collagen formation response would need to be fractional, not overly dense, in order to keep tissue soft to the touch.

My first case using this concept for breast lifting was performed in conjunction with a breast augmentation. Evaluation of the patient before surgery showed that her nipple-areolae were

quite low, with very little normal skin appearing below the areolae from the front view. The oblique view shows that her lower breast rests upon the epigastric skin. I knew that implant placement alone would be a bad idea, as the ptotic tissue and nipple complex would hang below the base of the implant.

Following injection of standard tumescent fluid, a minimally invasive bipolar radiofrequency device was used to thermally heat the superficial fatty layer of the breast prior to subpectoral implant placement. The patient also had an abdominoplasty. This combination of procedures gave an incredibly good result.

Limitations of the procedure include the lack of ability to correct all degrees of pendulous breasts. Only grades I and II ptosis are able to be significantly improved with this scarless, nonexcisional radiofrequency based technique. The quality of existing soft tissue, and the patient's compliance with wearing postoperative support garments can significantly affect and limit final outcome. While some lifting is apparent immediately, most patients see a peak of improvement at 6-12 months following the procedure.

HOW LONG DO THESE RESULTS LAST?

Again, it depends on the individual. Some patients see additional improvement without retreatment for up to 2 years. At four years, a small amount of aging



Figure 1 Breast augmentation combined with RF-assisted scarless breast lift. (Left) before treatment, the nipple-areolae sit quite low. After treatment (right), the contour is greatly improved

is visible, but the appearance does not return back to the pre-op level of laxity by this point.

New techniques are able to provide directional shaping as well as overall skin envelope reduction. By providing focal tightening in areas that are significantly lax, a defined round breast shape can be created. The challenge of reducing nipple-areola diameter remains; this cannot be corrected with the subcutaneous device alone. Research into deep RF needling may provide additional help in superficial skin contraction.

Radiofrequency energy is being used to tighten skin, as well as to mold and directionally shape masses of soft tissue. The ability to focally correct areas of pendulosity using minimally invasive devices may provide a solution to problems that cannot be well corrected with surgical excision, such as submental laxity, upper arm laxity, pendulous breasts after breast feeding, and mild periumbilical or suprapubic loose skin following childbirth or weight loss.

► **Diane Duncan, MD**, is an award winning and globally recognized Plastic & Reconstructive Surgeon based in Fort Collins, CO. She has been recognized by America's Top Surgeons, Castle Connolly Top Doctor as well as a Five star local provider by Talk of the Town

ALLERGAN TO ACQUIRE KELLER MEDICAL, INC., ADDING KELLER FUNNEL® TO COMPANY'S LEADING PLASTIC SURGERY PORTFOLIO

Allergan have announced that Allergan's wholly-owned subsidiary, Allergan Sales LLC agreed to acquire Keller Medical, Inc., a privately held medical device company and developer of the Keller Funnel®. The Keller Funnel is a cone-shaped, lubricated plastic funnel that reduces surgeon and patient contact during breast augmentation or reconstruction procedures. Keller Medical launched the original Keller Funnel® in 2009 and the Keller Funnel® 2 in 2014, and hundreds of thousands of funnels have been used in breast augmentation or reconstruction procedures to date globally.

“Allergan is focused on providing technologies and products to help our surgeon customers improve procedures and Keller Funnel is that product for breast augmentation

and reconstruction procedures,” said David Moatizedi, Senior Vice President of Medical Aesthetics at Allergan. “The Keller Funnel was developed and designed by pioneering surgeons to improve breast implantation, and reduce the risks of implant contamination during procedures. This is a natural complement to our world-class plastic surgery and regenerative medicine business, and marketing this innovative device further enhances our commitment to our customers and patients.”

THE KELLER FUNNEL

The Keller Funnel is used to assist plastic surgeons in breast augmentation and reconstruction procedures by guiding silicone gel implants into the surgical pocket. The

Funnel also allows surgeons to use a “no-touch” technique, which may help minimize the introduction of bacteria and foreign material into the surgical pocket.

“The purchase of Keller Medical demonstrates Allergan's ongoing commitment to excellence in breast augmentation and reconstruction surgery,” said Louis P. Bucky, MD, Clinical Professor of Surgery, Division of Plastic Surgery at the University of Pennsylvania School of Medicine and Chief of Plastic Surgery at Pennsylvania Hospital. “The Keller Funnel has become an innovative component to deliver the highest level of care for my cosmetic and reconstructive breast implant patients.”

For more information, visit Allergan's website at www.Allergan.com.