

# A First Look at Rotational Fractional Resection

A new technology offers a fresh approach to treatment of submental contouring.

WITH HEMA SUNDARAM, MD

## What is rotational fractional resection?

**Hema Sundaram, MD:** Rotational fractional resection or RFR (Recros Medica) is a minimally invasive surgical procedure for skin contouring. It is an alternative to a facelift combined with liposuction; RFR can be done under local anesthesia, whereas traditional surgery would need to be done under general anesthesia. It is also an alternative to some of the more recently emerging treatments for reducing fat, such as deoxycholate injection or cryolipolysis.

RFR uses small rotating cylindrical scalpels to excise loose skin and a rotating lipectomy cannula that can focally remove fat through the little access ports that are made with these cylindrical scalpels. There are two options for scalpels. One is a single scalpel that just makes one little resection of the skin, and we have now what's called an MSA or multi-scalpel array, which is nine little scalpels arranged in a 3x3 square, so that you can do nine resections at a time. After the procedure, an elastic adhesive membrane is used for closure in a way that will help to facilitate the contouring effect.

## What is the duration of the treatment as well as the healing and downtime associated with it?

**Dr. Sundaram:** My personal experience is that I'm completing the procedure from start to finish in about 45 minutes to an hour. That includes intradermal and tumescent anesthesia, and treatment of the submental region, neck, and jowls.

The duration of downtime will vary from patient to patient, and from doctor to doctor. First of all, as with a conventional tumescent liposuction procedure, the fluid will need to drain for the first 24-48 hours. An absorbent ABD pad is placed on top of the adhesive membrane that is used to close the resected sites. On top of that, patients will wear a chin support garment, as they would after any kind of contouring procedure for the chin and neck.

For our follow-ups in the study, patients would come in at one to three days to have the first checkup. At that time, most likely the absorbent pad could be removed because all

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the drainage is completed. The adhesive membrane is left on until either day 7 or it comes off on its own.

At seven days, there is another follow up; if the membrane has not come off on its own, we take it off then. By that time the patient is well on the way to healing. We see at that point that the areas of the skin that were excised by the scalpels have epithelialized. We will see some skin erythema and sometimes a little mild crusting.

When the dressings come off at day seven, patients can already start to see the contouring effect.

That will continue over the ensuing weeks and months. As post-procedural swelling goes down, patients see further improvement through the study.

## What do interim study results tell us about RFR treatment?

**Dr. Sundaram:** In the study, we were looking at patients with mild to moderate skin laxity and mild to moderate submental lipodystrophy. We have interim data at 30 days. The study goes out to six months, so we'll have a fuller picture at 180 days.

Based on what we're seeing at the moment, it looks like one procedure would be appropriate for mild to moderate skin laxity and lipodystrophy. Data recently reported at the Annual Meeting of the American Society for Dermatologic Surgery (ASDS) included 31 subjects assessed at Day 30. There



Subject treated with RFR. Courtesy of Recros Medica.

was a one-point mean improvement on a 5-point scale in both skin laxity and lipodystrophy. That means if a patient had mild skin laxity or lipodystrophy to begin with they improved to none, and if they had moderate skin laxity or lipodystrophy, they improved to mild.

Based on this initial interim data, RFR appears to be a promising procedure for submental contouring. It offers the ability to treat skin laxity and lipodystrophy in-office under local anesthesia. At Day 30, 19 percent, or six of 31 patients, had a 2-grade point improvement in skin laxity. And 25 patients, which is 81 percent, had at least a 1-grade point improvement in laxity.

For lipodystrophy, seven of 31 subjects, which is 23 percent, had a 2-grade point improvement at 30 days. And 23 subjects, which is 74 percent, had at least a 1-grade improvement in lipodystrophy.

Study subjects also evaluated themselves. At day seven, 27 of the 31 patients, which is 87 percent, were satisfied with their results with neck and jaw line appearance; 29 of them, which is 94 percent, said that they were satisfied with recovery time. And 27 of the 31, which is 87 percent, said that they were satisfied with the procedural results. Twenty-eight out of 31, which is 90 percent, said they would recommend the procedure to friends and family.

If we go out to day 30, when the treatment area was healed over and more contouring effect was evident, we see similar subject satisfaction ratings. Eighty-four percent of subjects, which is 26 out of 31, were satisfied with the appearance of the neck and jawline; 23 of them, which is 74 percent, were satisfied with the recovery time. Twenty-seven, which is 87 percent, were satisfied with procedural results, and the same proportion would recommend the procedure to their friends and family. The majority of

patients—97 percent—at day 30 did not have any physician-reported signs of visible scarring.

At 30 days, 97 percent of the subjects said that they were likely—ranging from extremely likely to a little likely—to recommend the procedure to friends and family.

### What would you like to see in future studies of this technology?

**Dr. Sundaram:** This initial, multi-site study has enrolled a total of 68 patients, with a mean age of 54 years. All subjects have Fitzpatrick skin phototypes 1-3, which is the lighter skin type. The application of RFR may be investigated later in the higher skin phototypes, that is, in patients of color. As the study progresses, all the subjects will be followed out to day 30 and then ultimately they will go out to day 90 and day 180, and that will give us an even fuller picture of RFR's efficacy, tolerability, and subject satisfaction.

It's exciting that we are currently studying this technology for the submental application, and also for the jowls. But there are so many other potential applications. For instance, RFR has potential to tighten skin of the knees, the abdomen, the inner thighs, the bra strap area, the elbow area, and in those areas, if we need to, we can also remove fat.

There have been some very preliminary looks at these types of procedure but no studies, so at this point it would be an anecdotal impression that this technology could have potential for all those areas. Of course, we need to study those areas to evaluate the efficacy, safety, tolerability, and patient satisfaction. ■

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