New Fraxel Laser Gaining Popularity in Practices

**BY BETSY BATES**
Los Angeles Bureau

**L A S V E G A S —** A new version of the Fraxel laser penetrates more deeply—yet causes less pain and requires fewer treatments—than does the original Fraxel system, speakers said at the annual meeting of the American Society of Cosmetic Dermatology and Aesthetic Surgery.

The new Fraxel SR1500, approved by the Food and Drug Administration in August 2006, promised enhanced efficacy and safety, said Dr. Richard Fitzpatrick, a dermatologist in private practice in La Jolla, Calif.

"For the most part, I think that has held up," he said.

The idea behind Fraxel lasers is to deeply penetrate dermal tissue in a specific pixel-like pattern, leaving behind healthy tissue withstanding the wounds.

The original Fraxel was approved by the FDA in 2003 for the treatment of wrinkles, melasma, and scars from acne and surgery, among other indications. The new Fraxel, which costs in the range of $110,000, is capable of deep penetration—to 1,200 microns—and includes a telescopic lens and dosage-control system that permits the use of much higher energy settings.

"You almost have to rethink Fraxel" in adjusting to the new device, said Dr. Vic Narurkar, who is in private practice in San Francisco. "Depth really does matter."

Moreover, it is important to understand the confusion regarding the term "fractional resurfacing," he said in an interview following the meeting.

True nonablative fractional resurfacing requires a midinfrared wavelength, such as the 1550-nm wavelength of the Fraxel SR1500 and the original Fraxel SR750. Most other fractional devices are marketing toys and are not supported by clinical studies," Dr. Narurkar said.

Although Dr. Fitzpatrick admitted his energy settings to about 8-20 mJ/cm² on the face with the first-generation Fraxel, he feels comfortable using the midinfrared with the new Fraxel, even "pushed the envelope" beyond that.

Dr. Narurkar now routinely treats Fitzpatrick skin types I-III at 40 mJ/cm² for acne scar patients of all skin types.

Ponder the Promises, Perils of IPL Devices Prior to Purchase

**BY DOUG BRUNK**
San Diego Bureau

**C A R L S B A D , C A L I F . — ** At a symposium on laser and cosmetic surgery sponsored by SkinCare Physicians, Dr. E. Victor Ross Jr., shared what he looks for in a good intense pulsed light device.

First, he looks for variability in spectral shapes. This allows tailoring and fine-tuning of applications to control the clinical outcome, said Dr. Ross, director of the Scripps Clinic Laser and Cosmetic Center in San Diego.

The ability to predictably treat vascular lesions while preserving epidermal pigmentation includes the ability to treat through a tan, "I always hear people from the north-east say: 'We don't treat tanned patients.' You have to be cautious, but you can do it," he said.

With tanned patients you need to use "all the weapons [you have], which means external cooling and internal cooling, particularly between the vascular lesions."

Efficient cooling is also important. It’s not about cooling the skin," he said. "It’s about keeping the hand piece cool."

IPL devices should also support some laser platforms, such as the erbium:YAG, the neodymium:YAG, or the erbium glass laser, he said, adding that a reliable external calibration system that interrogates the entire system from the power supply to the output is of growing importance.

He also recommended user-selectable pulse durations that allow for the proper balance of fluence, wavelength, and cooling.

Carbon Plus Laser Touted for Rejuvenation of Asian Skin

**BY DAMIAN McNAMARA**
Miami Bureau

**L A S V E G A S —** An aging Asian face can be rejuvenated with application of carbon followed by nonablative laser treatment. "My nonablative toy at the moment is carbon plus a Q-switched Nd:YAG laser," Dr. Ruban Nathan said at an international symposium on cosmetic and laser surgery.

"Carbon applied to skin serves as an artificial chromatophore to transfer energy into the epidermis," Dr. Nathan said. "You leave carbon on for half an hour or steam it in to skin for even better results."

"Across indications, fewer treatments are necessary to the company as well."

"Postinflammatory hyperpigmentation is another clinical concern of older Asians—end of story," Dr. Nathan said. "These patients will come for treatment of lentigens, dyschromias, ephelides, melasma, peri- orbital hyperpigmentation, and matura- tional hyperpigmentation. Depigmentation agents—such as microdermabrasion, fruit acids, intense pulsed light (IPL), and frac- tional resurfacing are treatment options."

Researchers assessed 10 women with Fitzpatrick skin types III-V with melasma unresponsive to previous therapy treat- ed with fractional thermolysis, for exam- ple (Dermatol. Surg. 2005;31:1645- 50). "This study showed some moderate improvement, but the cost is prohibitive where I come from," Dr. Nathan said.

"Lasers are not available everywhere in the world," Dr. Nathan said. "I wish these were more affordable. They are available for the few."

In addition, there is a paucity of data on reactions of Asian patients to laser treatment.

Radiofrequency devices might also benefit ethnic skin types. This treatment was effective for cosmetic improvement of nasolabial folds, marionette lines, and jowls in a study of 85 Japanese women (Lasers Surg. Med. 2005;36:92-7). "They had good results," Dr. Nathan said.

"Counsel patients about potential side effects, such as risk of hypopigmentation with IPLs," Dr. Nathan said. "Provide strict sun avoidance strategies, such as UV screening on car windows and limi- tations on outdoor activities."

Postinflammatory hyperpigmentation is another clinical concern following laser treatment of Asian skin. The risk is relatively low with the carbon plus Q-switched Nd:YAG laser regimen, Dr. Nathan said. "I’ve done this in 60 or 70 patients and I think two had postinflam- matory hypopigmentation."

Dr. Nathan emphasized a need for ad- ditional physician education on the unique issues affecting Asian skin. "Any- one who is seeing Asian patients should go to conferences like this or conferences in Asia so you know the pa- rameters and pitfalls."

"Coverage”—the number of microther- mal zones of damage required—depends on the condition being treated and the anatomical location, the speakers agreed. A level 6 setting on the laser translates to 20% coverage, with levels building or declining in 3% increments, Dr. Fitzpatrick explained. A level 7 achieves 25% coverage, for example.

The ease of the system does not negate the importance of being careful, however. The laser’s ca- pability of going to extreme depths with a high degree of energy can pro- duce an "intense collimated dermal reaction," which Dr. Fitzpatrick said is unlike any he has ever seen.

Choosing a coverage setting that is too high can be dangerous. "You will reach the point, if you go too far, where you will risk bulking. You will generate thermal necrosis of the area," he said.

On the other hand, significant swelling and erythema are very unusual, and the in- creased energy delivery makes for better results, Dr. Fitzpatrick said, adding, "High pulse energies are more effective for al- most everything."

For mild to moderate photodamage on the face, he performs four treatments us- ing energy in the range of 10-20 mJ/cm², opting for 26%-32% coverage at each ses- sion for a total 85% coverage by the end of the treatment series.

For acne scars, he starts at 25 mJ/cm² and about 26% coverage, unless patients "will put up with a little more" for more immediate results. In that case, he begins at 30 mJ/cm² and aims for 32% coverage.

"The Fraxel does better with acne scars than any device I’ve ever used," he said.

Dr. Narurkar agreed, saying that both the first- and second-generation Fraxel lasers are "rapidly becoming the treat- ment of choice" for this indication.

Across indications, fewer treatments are required with the second-generation Frax- el, although patients are "extremely satisfied with the treatment."

Both speakers disclosed that they have received grant or research support from Reliant Technologies Inc., maker of the Fraxel laser. Dr. Nathan co- sues the company as well.