

Versatile and reliable eCO₂TM provides remarkable results

Dr Omar A. Ibrahim is interviewed about his experiences using the eCO₂ laser platform from Lutronic, and why the device is making a range of treatment protocols possible



OMAR A. IBRAHIMI, MD, PhD, is Medical Director of the Connecticut Skin Institute, Stamford, CT

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OFFERING AN IMPRESSIVE ARRAY of capabilities that harness the power of the technology like no other devices on the market, the eCO₂ fractional CO₂ laser platform from Lutronic® (Seoul, Korea) is a go-to device in the clinic of practicing dermatologist Omar A. Ibrahim, Medical Director of the Connecticut Skin Institute in Stamford, CT.

'It allows me to perform a variety of cosmetic procedures ranging from gentler fractional treatment to classic fully ablative resurfacing, as well as address scarring,' he said. 'Unlike other CO₂ lasers, there is no disposable tip to elevate operating costs, so I use it several times a week, providing value as well as satisfying results for my patients. The variety of available tips help me control not only the depth of the ablative columns, but also the width.'

The scanning technology is a key feature, which greatly contributes to the success of eCO₂. Known as Controlled Chaos Technology™ (CCT), the device lays down the tissue ablation columns in a pseudo-random pattern that maintains distance between them, minimising the potential for unwanted bulk heating that might confound results. 'This is a critical feature that minimises side-effects and improves the consistency of results. If ablative columns were laid down in juxtaposition, bulk tissue heating could lead to scarring.'

The device itself has been ergonomically designed; comfort and efficiency of treatment, portability, and ease-of-use are second to none, according to Dr. Ibrahim. 'The interface of eCO₂ is extremely friendly and I was able to successfully and confidently operate the device within minutes of setup. Also, the slender design lends itself to my office because it's so easy to move.'

A versatile device

Although useful for basic fractional rejuvenation, Dr Ibrahim was especially impressed with the way all types of scarring respond to eCO₂. 'One of my most rewarding cases involved a man presenting with nearly total body burn scars*. For someone who hasn't been there, the devastating effect such a condition has on quality of life for even the most positive person is truly unknowable.'

In addition to appearance deficits, there may be debilitating pain and a range of motion issues. 'These people can't button-up a shirt without discomfort. One's ability to cope with daily life is compromised.'

According to Dr. Ibrahim, the treatment of burn scars with eCO₂ was almost serendipitous. 'We've been testing and developing protocols for 5-7 years now, and our ability to use a device like eCO₂ for this end is incredible. With eCO₂ we can cause therapeutically useful ablation of tissue and induce the production of healthier collagen. In essence, we can undo the speedy but imperfect healing we see with various scar types.'



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Courtesy of J. Rappaport, MD, USA

When it came time to treat, eCO2 delivered. 'The improvement our patient obtained from a single treatment in terms of increased range of motion was extremely gratifying. Not only did it enable him to do mundane tasks we all take for granted, but the prospect of additional improvement has given him a renewed outlook on life. This is aesthetic medicine at its best. I think the military is very interested in this because of the kinds of recovery issues they are faced with on a regular basis. Twenty years ago, what might have killed someone is survivable, but recovery is hard.'

Burn scars are especially challenging. 'These people can't easily open and close their hands, for example. The associated contractures cause stress to bones and tendons that even a dozen surgeries cannot truly alleviate.'

Immediately after treatment the patient commented on what he felt to be obvious improvement. 'He felt he could more easily move his fingers, and the mechanism behind this is somewhat obvious and elegant. It's a combination of collagen remodelling, release of tension, and more, but we have a lot to learn about it. The military is interested enough in the fractional technology to fund a large grant at Massachusetts General Hospital to explore this further. eCO2 is a truly worthy technology and it's very exciting to be able to change lives like this.'

Reliability and exciting prospects

The average patient has a lot to look forward to as well. Comfort during treatment is promoted with simple topical anaesthesia, coupled with the device's cooling system. 'Patient tolerance of treatment has been easy to manage,' Dr Ibrahim said. 'And the forced air cooling provides an additional layer of comfort. I see eCO2 setting the standard for fractional CO₂ in terms of versatility, safety, and reliability.'

According to Dr Ibrahim, the microablative columns open up a new dimension of drug delivery* also, which he is currently exploring. 'This is a new trend I see moving forward, using devices to make skin permeable to drugs to facilitate delivery across the dermal barrier. This will increase as we learn more about the pharmacokinetics of delivering drugs in this manner.'

Being research-oriented, Lutronic is not only constantly improving its product line, they're responding to the physician's needs and are working to maximise the benefit of the technology and its usefulness. 'Lutronic is open to new ideas, firm but flexible in their training,



Courtesy of WS Kim, MD, Korea

Courtesy of M.G. Rubin, MD, USA

and available to customers. They want to discover the truth and use it to craft better devices; Lutronic doesn't pretend to know it all or be the last word on what their devices can do, but they do strive for that ideal. Their people know the business and are extremely efficient and easy to work with.'

For doctors considering the addition—or upgrading—of a CO₂ platform in their practice, Dr Ibrahim had this to say: 'The CO₂ laser is a valuable part of any practice performing laser procedures. I would recommend that the physicians ask themselves what types of treatments their patient population is expected to request. One of the nice things about eCO2 is that it allows one to perform both fractional and fully ablative resurfacing treatments without any expendable tips. I have found this utility and versatility adds value to my practice. Consider also what the company offers in terms of corporate philosophy, as well as support and training. In my experience, Lutronic has been nothing short of wonderful.'

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* Although such indications have not yet received FDA clearance in the US, Lutronic is currently working on obtaining these clearances through a variety of clinical evaluations

Further information: www.Lutronic.com/eCO2