Innovative Microwave Technology Melts Fat

By Kevin Wilson, Contributing Editor

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Continuing in its tradition of launching novel technologies at the forefront of the aesthetic market, DEKA M.E.L.A. S.r.l. (Florence, Italy) has introduced Onda. This new minimally-invasive body shaping platform uses controlled microwave delivery at variable depths to treat skin laxity, cellulite and unwanted deposits of subcutaneous fat. Its proprietary, patent pending microwave technology treats in short, ten-minute sessions with no discomfort or downtime.

Microwave technology has been widely used in medicine for a variety of applications such as oncology, and has been shown to be safe and effective. In this case, the energy is harnessed to induce physiological necrosis of adipocytes to create visible fat reduction within one to two sessions. The modality's selectivity for fat has been demonstrated via histologic and electronic microscopy.

"Onda is a breakthrough in my practice," said Professor Paolo Bonan, M.D., a dermatologist at Villa Donatello Clinic (Florence, Italy). "It allows treatment of conditions like cellulite and skin laxity as well as fatty deposits at different depths of action, providing all of the desired body shaping treatments in one platform without the problems associated with other technologies. Patients are extremely happy with the typical results of this new and intriguing procedure, that it is minimally invasive, and very comfortable. There are no burns or overheating, just comfort. At this time Onda is the top requested treatment by our body shaping patients."

"Originally I was very skeptical about the technology, but with my experience I can say Onda is a very safe platform," Prof. Bonan continued. "The microwave delivery occurs only by contact with the skin, and the energy release is accurately controlled by the handpiece so that there is no way to harm the patient at all, which puts the operator in the best position to work comfortably as well."

The Onda handpiece technology allows for full control of the microwave energy being delivered into the body. Direct targeting of the subcutaneous fat tissue prevents superficial layers of the skin from unwanted overheating and dramatically reduces the probability of both irritation and burns.

"This is a huge practical advantage when compared to radiofrequency (RF)-based devices, as well as other technologies where ancillary treatments are needed to provide either patient relief or stabilize the results," explained Professor Nicola Zerbinati, M.D., of Centro Medico Polispecialistico in Pavia, Italy. "Onda selectively targets the subdermal fat with no thermal implications to the upper dermal layers of the skin. This is not just a matter of handpiece cooling, but rather for the first time, we are able to produce a focalized treatment specifically where it is needed. This comes from a deep knowledge of the characteristics of the skin layers as well as their behavior when treated by very high frequencies."

"Comparing microwave energy to other fat reducing technologies, I am amazed by the limited number of procedures required for patients to see results," Prof. Bonan added. "Individual treatment sessions last less than ten minutes each, which dramatically impacts patient satisfaction. The operator is aided throughout the entire protocol thanks to the intuitive graphic interface, which makes the procedure very easy and pleasant to perform."

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Before and after one Onda treatment

Photos courtesy of Prof. Rosario Perotta, M.D. and Maria Stella Tarico, M.D.