

MOSAIC Features Unique Clinical Advantages

By Bob Kronemyer, Associate Editor



Ko Chung Beng, M.D.
Clinic Pakar Kulit Ko
Malaysia

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With the recent introduction of fractional photothermolysis, fractional lasers have become an extremely popular cosmetic modality. A number of fractional devices advertise their superiority by using different wavelengths and technological advancements. Compared to these conventional fractional resurfacing systems, the MOSAIC Erbium Glass Laser System from Lutronic Corporation (Ilsan, Korea) offers unique clinical advantages with a patented laser beam delivery, a regionalized total density counter and dual operation modes.

One of the main attributes of all fractional devices is the laser beam delivery system. MOSAIC's patented Controlled Chaos Technology (CCT) randomly creates deep, microthermal injuries that spare surrounding tissues, according to Ko Chung Beng, M.D., of Clinic Pakar Kulit Ko in Malaysia. "With randomized laser beam delivery, cross-thermal diffusion between the microbeams can be greatly minimized, in contrast to a predetermined, evenly-spaced matrix of photothermal wounds found in other systems," Dr. Beng noted. "CCT produces less pain, early recovery and reduced post treatment side effects such as pigmentary alteration, infection and scarring."

Another convenience of the MOSAIC laser system is its ability to concurrently count the exact total density in five facial regions. "Conventional fractional laser devices on the market do not have the ability to count each microbeam delivered," Dr. Beng stated. "With these other devices, the number of total density is either predetermined before the treatment begins, estimated or rounded to a specific integer." Because the periorbital or perioral regions can be more sensitive than areas such as the cheeks or forehead region, less total density is required with the MOSAIC in order to avoid post treatment side effects.

MOSAIC also features advanced software to induce a precise number of microlaser beams to any of five facial regions. "This option gives me more control during treatment and enables me to properly treat each region without needing to count the number of passes, or stamps, from memory," Dr. Beng said. "For example, I have the ability to deliver 660 spots/cm² in the chin area, whereas in the cheek region I can deliver 1100 spots/cm²."

Dr. Beng also noted that today's fractional systems penetrate microcolumns of light energy into the skin, either by a continuous movement of the handpiece or a stamp-like operation mode. "While both of these approaches have their advantages, there are some restrictions to each mode in terms of treatment size and time," he said. "The MOSAIC allows users to freely choose or switch between both operation modes."

To cover large areas or quickly perform a full-face treatment, the Dynamic Mode or continuous movement of the handpiece is useful. Conversely, the Static Mode or stamp approach can treat small single lesions more effectively. "Two distinct operating modes provide me the freedom to use both approaches in the same session," Dr. Beng explained. "I can perform a full-face treatment in the Dynamic Mode, then make my finishing touches on just the ice-pick scars using the Static Mode."

Having evaluated several other fractional resurfacing systems, "the MOSAIC laser system has proven to have its clinical advantages," Dr. Beng said. Besides adjustable penetration depths up to 1.2 mm and its unique user interface, "the MOSAIC has become a viable option to those practices desiring safe and substantial results for the treatment of sun damaged skin, melasma and atrophic scars."