

An Innovative Approach Using A Single RF Pulse Combined With Cooling System To Maximize Collagen Regeneration

Dr. Moo-Hyun Son, Cheongdam FnB Clinic

Dr. Moo-Hyun Son of Cheongdam FnB Clinic has primarily relied on bipolar RF systems for radiofrequency treatments over the years, during which he experienced both their advantages and limitations. As monopolar RF devices have recently been introduced extensively into the field of aesthetic medicine, his interest naturally expanded toward this modality.

In this issue, we take a closer look at how Dr. Son first encountered **VOLNEWMER**, his impressions during the initial demonstration, and his clinical evaluation based on hands-on experience. Dr. Son particularly emphasizes his high level of satisfaction with VOLNEWMER's **distinctive water-based cooling system** and its **nearly painless treatment process**. Through real-world applications and successful clinical cases, he also shares his professional insights on achieving safe and effective monopolar RF treatments.



What Prompted You to First Consider VOLNEWMER?

As demand for monopolar RF treatments continued to increase, I felt it was necessary to introduce a related device into our clinic. Around that time, I learned that Classys was preparing to launch a new monopolar RF system, which raised my expectations to a certain degree.

In the spring of 2023, I attended an aesthetic medical conference and encountered VOLNEWMER at the company's exhibition booth. At the event, actress Ji-Yeon Lim, who served as VOLNEWMER's brand ambassador, visited the booth and attracted considerable attention. Personally, I had not watched the drama in which she starred that became a major hit, but acquaintances informed me that a very famous actress would be attending. It made me realize that for the general public—who may find it difficult to fully understand aesthetic medical technologies—well-known celebrities can exert a significant influence.

Afterward, my curiosity grew regarding how other physicians perceived VOLNEWMER, so I attended related lectures. Presentations by Dr. Sang-Hyuk Park and Dr. Je-Wan Hwang were particularly informative. VOLNEWMER differs from other monopolar RF devices in its pulse delivery and cooling mechanisms, and it was beneficial to gain a clear understanding of both the technology itself and its clinical utility in advance. Considering performance, clinical efficacy, and even the company's marketing capabilities in a balanced manner, I concluded that VOLNEWMER was the right choice.

Were You Using Other RF Devices Previously?

At the time, we were using only two bipolar RF devices. While bipolar RF has advantages—such as ease of use and the absence of consumables—it also has inherent limitations. There is a clear restriction in how deeply thermal energy can penetrate, which makes it difficult to maintain long-term effects. As a result, I began searching for a more effective treatment option.

What Were Your Impressions During the Demonstration?

Although I had not used many monopolar RF devices and therefore could not make extensive comparisons, what stood out immediately was the lack of pain. This allowed me to clearly appreciate the advantages of VOLNEWMER's unique water-based cooling system.

The goal of monopolar RF treatment is to improve skin elasticity and achieve skin rejuvenation through collagen regeneration. To obtain meaningful results, RF energy must be delivered deep into the dermis. However, delivering strong RF energy inevitably risks pain and adverse effects caused by heat accumulation in the epidermis. For patients who seek comfortable treatments, pain can be a decisive deterrent.

During the demonstration period, patients did not complain of significant discomfort, and we were able to confirm noticeable improvements in skin quality. This greatly increased my confidence in the device's performance. These results were largely attributable to VOLNEWMER's single-pulse energy delivery system. When continuous cooling is combined with single-pulse RF, it becomes easier to reach the target tissue temperature. This synergy between cooling and pulse design was the most compelling aspect for me.

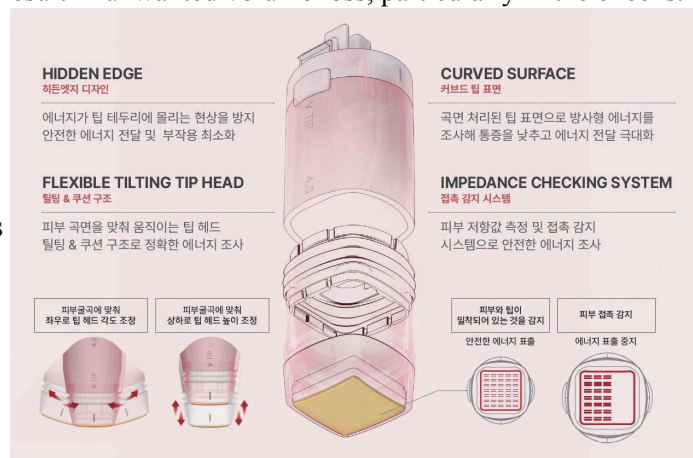
Which Patients Are Suitable for Monopolar RF in Lifting and Tightening?

In non-invasive lifting and tightening, HIFU and RF are generally considered the primary modalities. With HIFU, excessive energy delivery can result in unwanted volume loss, particularly in the cheeks. There are more patients than expected who are hesitant to undergo HIFU specifically due to fear of facial hollowing.

Additionally, because HIFU delivers energy deeply and focally rather than broadly and superficially, it can be challenging to apply safely to areas such as the neck. Targeting the entire dermis for collagen regeneration using HIFU alone is also not straightforward.

Laser treatments face similar limitations. Due to their dependence on chromophores, lasers cannot always precisely target the dermal layer, making it difficult to selectively induce collagen regeneration.

In this regard, monopolar RF is relatively well suited. Monopolar RF is particularly effective in patients without excessive facial fat. In patients with significant adipose tissue, we combine VOLNEWMER with HIFU or thread lifting to achieve optimal results.



How Do You Evaluate VOLNEWMER's Cooling System?

Most conventional monopolar RF devices rely on gas-based cooling. While this method provides strong cooling, it also carries a risk of skin irritation or damage. Because the cooling is applied abruptly and intensely, it can interfere with dermal temperature maintenance, raising questions about whether it is truly optimal for monopolar RF treatments.

What I would like to emphasize about VOLNEWMER's water-based cooling system is its continuous nature. With circulating chilled water, the skin cools gradually, allowing the elevated tissue

temperature to decrease slowly through reverse thermal diffusion after heat delivery. This approach is more favorable for achieving effective bulk heating, which is essential for collagen regeneration. Continuous cooling also **reduces the likelihood of adverse effects**.

Among all aspects of the device, pain control has been the most satisfying. Because patients experience minimal discomfort during treatment, we rarely feel the need to apply topical anesthetic cream—even at higher energy levels. Many patients who have previously undergone monopolar RF treatments at other clinics report that VOLNEWMER treatments are noticeably more comfortable. Patients with no prior monopolar RF experience may initially feel anxious when told that anesthesia is unnecessary, but afterward, they consistently report that the pain was far less than expected. I believe this speaks directly to VOLNEWMER’s technological sophistication.

Cooling is critically important in monopolar RF—not only for pain control but also for efficacy. When the epidermis is adequately cooled, resistance at the surface increases, allowing a greater amount of thermal energy to be transmitted into the dermis. I imagine that Classys must have given considerable thought before adopting a water-based cooling system.

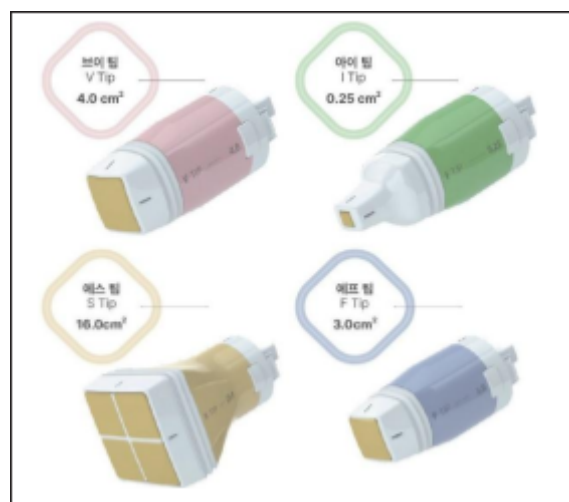
Is There a Particularly Memorable Clinical Case?

Before introducing VOLNEWMER, our clinic did not offer monopolar RF treatments. One patient had previously received treatment with a premium “original” monopolar RF device at another clinic. Due to severe pain, the patient underwent the procedure under sedation. However, because the patient was unconscious, they were unable to provide pain feedback during treatment, which ultimately resulted in a burn.

When the patient first visited our clinic, they had developed a strong trauma related to monopolar RF, firmly believing that such treatments were inherently dangerous. Upon evaluation, I noted that the patient did not have excessive facial fat and appeared to be an ideal candidate for VOLNEWMER. After careful explanation and reassurance, the patient agreed to proceed.

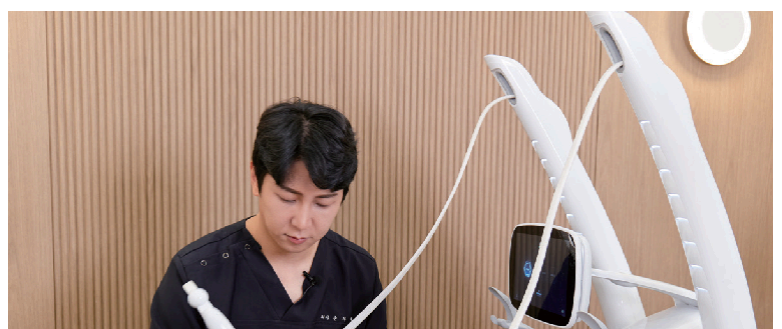
The patient was highly satisfied with both the treatment process and the results. As early as the day after treatment, they noticed improved skin firmness while washing their face. As collagen regeneration continued, the effects lasted for one to two months or longer. This patient provided feedback similar to many others, and the case remains memorable as it helped overcome both physical concerns and psychological fear.

Although not related to VOLNEWMER, I have also encountered burn cases caused by improper placement of grounding pads too close to the treatment area, as well as cases where scratches on insulated tips went unnoticed. These incidents were not due to device malfunction, but rather to procedural and environmental factors. This underscores the importance of thorough staff training and strict double-check protocols by the practitioner.



Could You Describe Your Treatment Protocol?

Shot counts are adjusted according to the treatment area. For the midface, I typically deliver 200–300 shots. When treating the entire face, including the forehead and



neck, the total number may reach 600 shots or more. Recently, we have also expanded indications to include the periocular area.

While more frequent treatments would be ideal, cost and time constraints often make this difficult. Generally, I recommend treatment once every three months, or once every six months if that is not feasible. From a purely efficacy-driven perspective, monthly treatments would provide the best outcomes. In short, *the more frequently treatments are performed, the better the results—but patients can safely return whenever they feel the need without concern.*

At our clinic, we combine VOLNEWMER with thread lifting, HIFU, and skin boosters to maximize lifting, tightening, and skin rejuvenation effects. Because VOLNEWMER is a safe treatment modality, it can be combined with various mechanisms without added risk. Combination therapy also allows for longer treatment intervals while maintaining clinical efficacy.