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모바일매거진

## Special series

기미와 ABNOM의 임상유형별  
레이저 콤비네이션 치료  
보툴리눔 독신별 특징과 적응증  
눈 성형 시 결막부종의 예방 및 치료 프로토콜  
건조하고 민감하며 색소침착이 잘되는  
타이트한 피부를 위한 조언

## Monthly Special

칼슘 필러로 경험하는 코 필러 시술  
HA필러 뿌띠양약시술  
클리어토닝을 이용한 Skin Tightening  
HIFU Lifting 장비 선택 시 고려사항  
Treatment of Wrinkles and Laxity with  
the Affirm Anti-Aging System with Multiplex



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특별 보상판매 실시!

LUTRONIC®



# What is the SECRET of advanced anti-aging?

RF niddle System은 표피뿐만 아니라 진피층까지 전달하여 교원질 재생촉진으로 주름개선, 탄력을 제공한다. Prime에서 소개된 RF niddle System의 특징점을 통해 피부개선을 유도하는 시크릿은 무엇인지 살펴보자.

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자료도움·Prime 2012,9 게재 (주)이루다 031-278-4660

## RF needle System

A variety of treatments have been introduced to prevent ageing skin, but SECRET RF is a new technology ideal for skin rejuvenation by applying highly controlled radiofrequency (RF) energy directly to a certain depth of the dermis with minimally-invasive micro-needles. The length of the needle ranges from 0.5 mm to 3.5 mm, which allows practitioners to apply a wide range of treatments. Furthermore, the adjustable intensity of RF energy enables treatment to different areas of the body. Past experiences have revealed that this technology is very effective for such diverse applications as wrinkles, skin laxity, pore tightening, scars, and stretch mark treatments. Histological evidence shows the production of new collagen through the wound-healing process just 2 weeks after the initial treatment.

## What are the advantages?

The need for the maintenance of natural, firm and tight skin — without use of dermal filler or botulinum toxin injections — has always been a goal for patients. Furthermore, treatments should not cause side effects and involve pain. Many patients often unable to afford to take days away from work or personal circumstances, which makes it difficult for them to seek surgical treatment. To cope with such difficulties, Ilooda has succeeded in developing an appropriate alternative to surgery. SECRET RF enables a range of treatment protocols, including micro .needling and mesotherapy, and RF treatment, which are not new to clinicians. Lasers have thus far been used to improve the texture of the skin and visually achieve regenerative effects to the skin. Unfortunately, these methods can result in damage to the epidermis and a substantial

downtime, resulting in the avoidance of such treatments. In addition, they more often than not present with side-effects such as infections and scars as a result of treatment. However, micro-needling treatments have been carried out, and with good results, where repetitive treatments play an important role, as collagen can only be formed through mechanical stimulation. In addition, deformity of the skin structure is minimal, but the skin's thickness increases by up to 0.45 mm. Now, we are able to trigger the production of new collagen from the dermis using the SECRET RF, which enables practitioners to perform treatment without causing additional damage to the skin.

#### **How does SECRET RF work?**

Treatment deep in the dermis —without leaving any damage to the skin —becomes possible by way of the time delay of RF in the SECRET RF. The needles are designed to be punched into the skin and pulled out immediately at a rate of 1 : 1000 second. RF stimulation is made for an interval of a few thousandths of a second to prevent thermal damage after they are administered to the affected area. The needles are kept in a cold state while in the skin. They are adjustable within a range of 5.5 mm, which allows the practitioner to perform treatment depending on a variety of skin conditions. In wound healing, transforming growth factor beta-3 (TGF- $\beta$ 3), vascular endothelial growth factor (VEGF), epidermal growth factor (EGF) and fibroblast growth factor 7 (FGF7) activate the fibroblasts and secrete tropoelastin, and stimulate heat shock proteins (hsp) 27 and 72. They control proliferation, differentiation and apoptosis processes in the cell stressed by heat. The coagulation in the dermis caused by heat stimulates the secretion of new collagenases, which will, in turn, activate collagen and fibroblasts for a long period of time. When the secondary treatment is performed, the depth of needles is changed to obtain both deep and superficial layer stimulation effects. It takes a total of 1 hour to perform this treatment. Lidocaine cream is applied to reduce any pain that may occur. The face may become reddish after treatment, which will usually disappear within 24 hours. It is recommended that three treatments should be performed, with an interval of 2 months between applications.

#### **What is the clinical result?**

The author is pleased that the majority of patients are satisfied with the treatment. Only one patient among 30 treatments failed to see any difference in the look and feel of the skin. In the author's experience, there have been cases in which some patients were



only a little satisfied or unsatisfied, when considering a medical instrument. However, it was very encouraging to see older patients experience a reduction to wrinkles with the progress of treatment—even from the very first application. In particular, the effectiveness of the treatment of scars is noteworthy. Two patients who had received treatment developed swelling the next day; however, it was a normal effect that may manifest in the course of treatment and nothing to worry about. The author sent the tissue samples of the patients to the laboratory and was able to obtain evidence that collagen regeneration had progressed even after only 2 weeks (Figures 4 and 5).

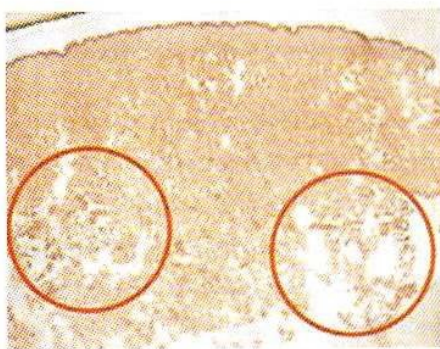


Figure 4 Tissue necrosis in the deep dermis

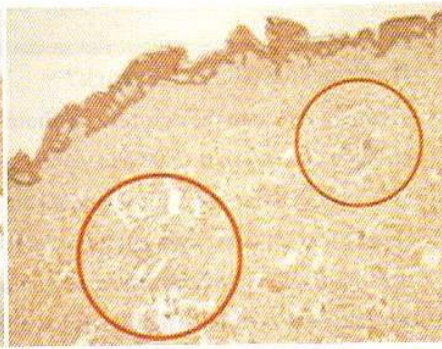


Figure 5 New collagen formation breaks down enzymes within 2 weeks of treatment

### What are the differences?

A number of competitive instruments have been made available on the market, as this product has used a relatively new technology. As there is concern about the possibility of the residue of an alloy being deposited inside the skin, it is important that needles are not insulated. Furthermore, the need for continuous treatment requires reasonable medical bills.

### Conclusions

SECRET RF allows practitioners to not only apply micro-needle fractional RF, but also provide the possibility of mono-polar RF treatment. Use of mono-polar RF for the maintenance of firm and supple skin, in addition to a combination of two methods, has brought good outcomes for patients. Patients who had visited the author's clinic had a good knowledge about this new trend by means of the Internet; that is why it is very important, as an expert in antiaging medicine, to keep up-to-date with regard to recently available treatment methods. 📄