# Lavieen



# **BB** Laser Lavieen

1927nm Thulium Laser

- · Skin Resurfacing
- · Pigmentation Removal
- · Fine Wrinkles Improvement
  - · Scar Treatment

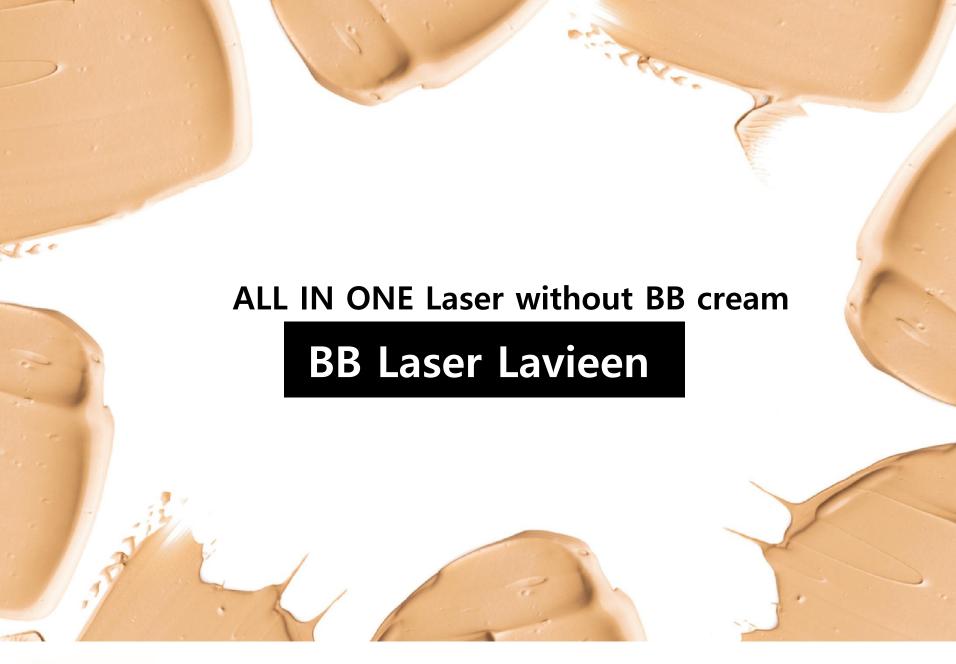


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# **01 Specification**



### **BB Laser Lavieen Specification**

Product	Lavieen	
Irradiation Type	Thulium	
Wavelength	1927nm	
Out Put	1 ~ 120mJ(Energy per Pulse)	
Max Energy	10W	
Pulse Width	0.1 ~ 10ms	
Scan Size	1X1 ~ 30X30 mm (1X1mm step)	
Scan Area	0.1 ~ 2.0mm (0.1mm step)	
Demension	279(W) * 687(D) * 766(H)mm	
Weight	30kg	
Tip	10, 20, 30mm	







### 02 Main features of Lavieen



- ▶ Deliver the heat to epidermis and upper part of dermis with preservation of stratum corneum due to the feature of 1927nmthulium laser reacting well to moisture
- ► Non-ablation procedure and Ablation procedure according to parameter setting
- ▶ Fast return to the routine after short downtime
- ▶ Various indications not only brightening but also pore, elasticity and fine lines.

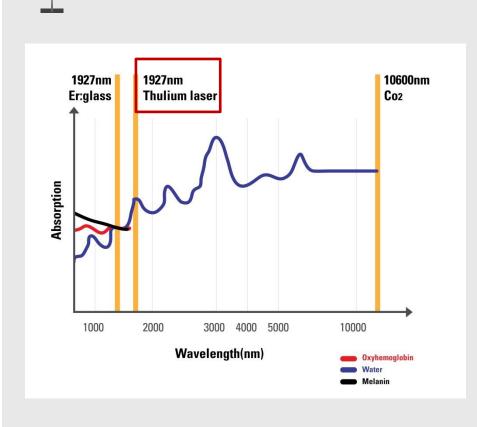




# 03 Lavieen treatment principle



#### Lavieen of wavelength that reacts well to moisture



#### 1927nm Thulium laser

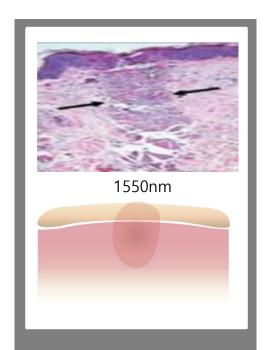
- ▶ Water absorption about 10 times higher than Er:Glass
- ▶ It is used for destruction or vaporization of tissue due to high affinity to moisture
- ▶ Remove melanin pigmentation from the basal layer by vaporizing the skin's moisture, which temperature rises sharply to absorb the laser energy
- ▶ After causing heat damage, melanin in epidermis is removed and bring brightening effect at the same time while micro crust is fell off.



# 03 Lavieen treatment principle

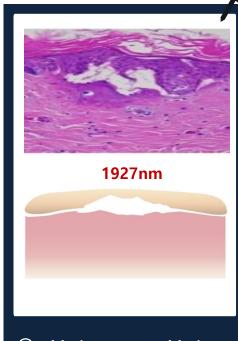


#### Lavieen has both feature of Er:Glass and Co2 laser



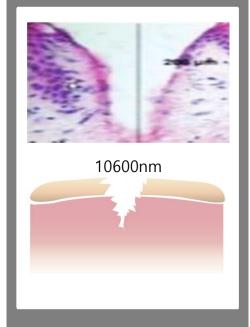
#### **♥** Non-ablative

Due to the low water absorption, depth is deep, but there is only denaturation which does not give a definite effect on pigment treatment



#### **♥** Ablative / Non-ablative

Water absorption is between Er:glass and Co2, remaining stratum corneum intact. Penetration depth is 0.15~0.3mm, Ablation/Non-ablation is possible depending on the amount of energy



#### Ablative

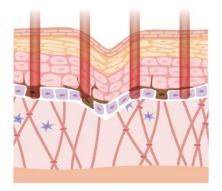
Damage to the skin barrier due to the ablation from stratum corneum. Longer downtime and high risk of PIH, erythema



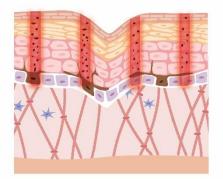
# 03 Lavieen treatment principle



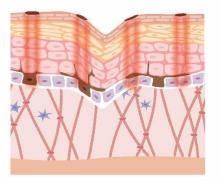
#### Removal epidermis pigmentation and dermis regeneration of Lavieen



Fractional laser irradiation
Transfer thermal energy to
the epidermis and upper
dermis with preserving
stratum corneum.



Melanocyte destruction of basal layer due to the vaporization of skin moisture by transfered heat energy and wound healing mechanism in epidermalgenerated MTZ

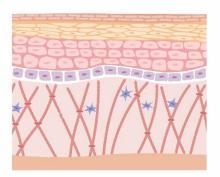


2-3 days

② Melanocyte-removed basal layer is elevated to the stratum corneum by faster cell regeneration cycle due to the effect of MTZ.

1 Micro crust formation within

③ 3 ~ 7 days of micro crust and keratin being fell off → pigmentation lesion treatment with brightening effect



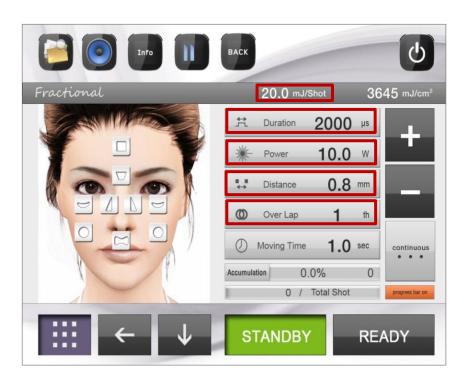
The thermal energy delivered to the upper part of the dermis is used to regenerate the skin by collagen contraction and collagen regeneration, thus reducing pores, removing fine lines, and improving skin elasticity and skin texture.



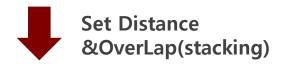
### 04 Adjust Ablation according to parameter setting



### Adjust Ablation according to parameter setting



Adjust the energy density per unit area with power and duration setting



Customized procedure according to the lesion with controlling the degree of ablation.



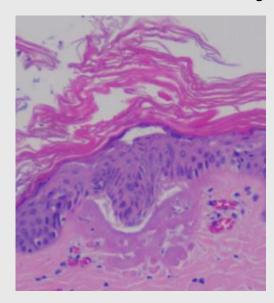
### 04 Adjust Ablation according to parameter setting



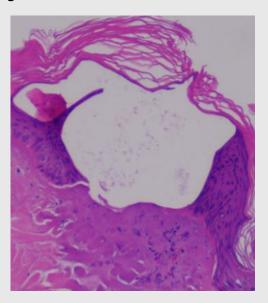
#### Adjust the Ablation with setting parameter

#### Customized procedure according to the lesion

with controlling the degree of ablation



<Non-ablation>



<ablaiton>



# **05 Various indications**







# 06 Prove efficacy through pre clinical



### Prove efficacy through pre clinical (Pig)

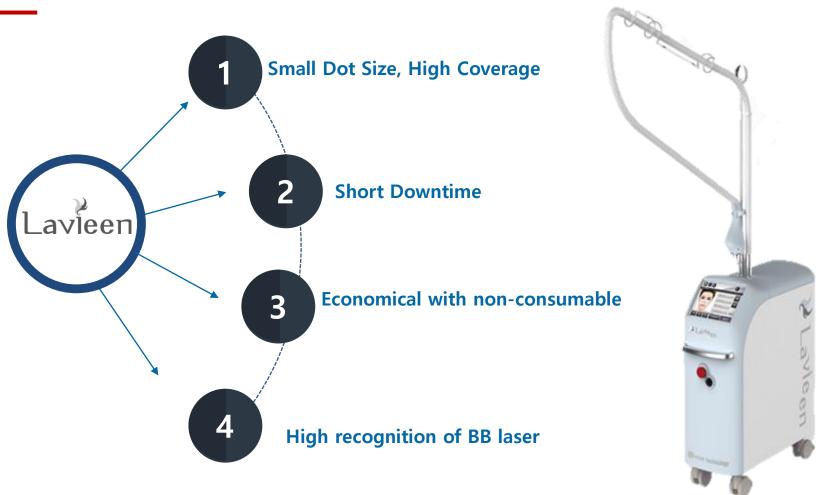
parameter	1.2ms / 10W / 1pulse	4ms / 5W / 1pulse	2ms / 10W / 2pulse
Energy	12mJ	20mJ	40mJ
Effect			2001
	<ul> <li>Remains epithelial cells</li> <li>The basal layer and upper dermis are slightly away</li> <li>Coagulation effect on upper dermis</li> <li>Epidermal tissues are slightly denaturalized</li> </ul>	<ul> <li>Remains epithelial cells</li> <li>The basal layer and upper dermis are fully away each other</li> <li>Ablation effect</li> <li>Thermal effect on upper dermis</li> </ul>	<ul><li>Destroyed epithelial cells</li><li>Fully ablation</li><li>Thermal effect on dermis</li></ul>



• 공동연구 : S&U 여운철 원장 / 한림대 성심병원 권인호 교수



#### **Benefit of Lavieen**







#### **Small Dot Size, high Coverage**



- Advantage during procedure
- ► Maximize the efficacy for coverage area with sophisticated procedure using small dot size
- ► Reduce the pain during procedure for small dot size

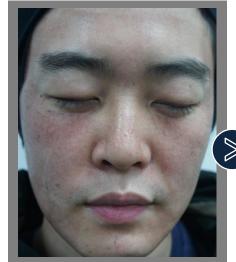


- Advantage after procedure
- ➤ Downtime becomes shorter due to the formation of micro crust created by small Dot size
- ► Micro crust is less noticeable, possible for daily life





#### **Short Downtime**



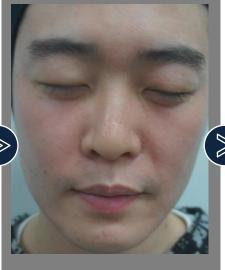
**After treatment** 

Erythema, Edema



The next day of procedure

Formation of micro crust



After 3days of procedure

Crust eliminated



procedure
Completion of the
treatment





#### **Economical with non-consumable**





#### **FRX Dual**

There is a consumable(tip), so steady maintenance cost is required







#### Lavieen

There is no consumable(tip), economical with no maintenance cost





#### **High recognition of BB Laser**



연환검색이 ② 라비앙레이져후기 라비앙효과 라비앙딱지 비비레이저 비비레이저 가격 비비레이저 라비앙



<u>(아비쥬 노원) 비비레이저 라비앙~</u> 2017,03,30, │ 🚅

여러분 안녕하세요~ 오늘은 라비양(비비레이저) 를 소개할게용! 말만들어도 피부가 깨끗해 절거 같은 비비를 바른것같은 효과를 줍니다 굿굿비비레이저는! 기미,잡티 색소성... ☆노원☆아비쥬클리닉 blog,naver.com/wynno... | 블로그 내 검색 | ▮약도 ▼



<u>비비레이저 생생후기 ★ 여름철 피부고민...</u> 2016,07,19, □ 다

라비앙 **비비레이저** 생생후기 요새 한동안 찍지 않던 셀카를 마구 찍어대고 있어요! 왜 ? 얼마전에 시술한 **비비레이저** 라비앙 덕분이에요 :D 병원정보에 대해서 궁금해하시는... 로즈발레 주인장의 ... blog,naver,com/rbstyle2014/220766046207 블로그 내 검색



<u>압구정피부과:)기미잡티레이저 비비레이저라비...</u> 2016,09,27, 🗆 😭

합구정피부과:)기미잡터레이저 비비레이저라비앙 일주일후 추석때 얼굴에 비비레이저 하고 나서 일주일후에 관리받으러 고고!! 레이저치료는 항상 관리가 더더 중요해요... 맘햄케이 blog.naver.com/momik... | @ 약도 \*



"라비앙 비비 레이저" 수원역 피부과... 22시간 전 | [4]

하하하 바로바로 ~~~ "라비앙 **비비 레이저** "인데요. 다른 화이트닝 레이저에 비해서 효과 가 빠르고 , 비교적 통증이 적다고 하여 바로 "수원역 피부과 수메디의원"으로 GOI GO...





<u>비비레이저 라비앙 청주미탐클리닉에서 만나세요</u> 2017,03,06, 1 😭

비비레이저 라비앙 청주미탐클리닉에서 만나세요 피부손상없이 비비크림을 바른 듯 깨끗하고 완벽한 피부로의 재탄생 할 수 있는 청주미탐클리닉의 비비레이저 라비앙... 미를탑하는데자 ♥ blog.daum.net/lmk2845/5924246 | 블로그 내 검색



<u>화이트닝 비비레이저 : 라비앙레이저...</u> 2016,06,07, 1 🕝

화이트닝 **비비레이저**: 라비앙 레이저, 모공관리에 좋은 레이저 () 지난 주 라비앙 레이저 시술을 받으러 피부과에 다녀왔어요 () 라비앙 레이저는 '**비비레이저**' 라는 애칭이...

:: 달달한 오후의 레... blog,naver,com/yuiop1193/220730192812 | 블로그 내 검색

• MedicalS 2016. 5월호



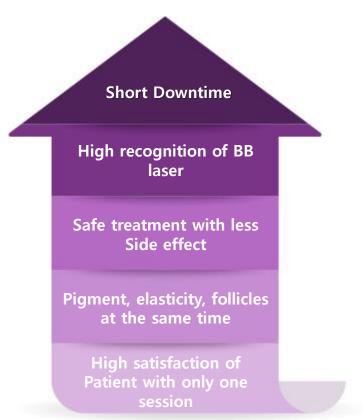




### High satisfaction of doctor and patient

High satisfaction of doctor(practitioner) High satisfaction of customer(subjective)

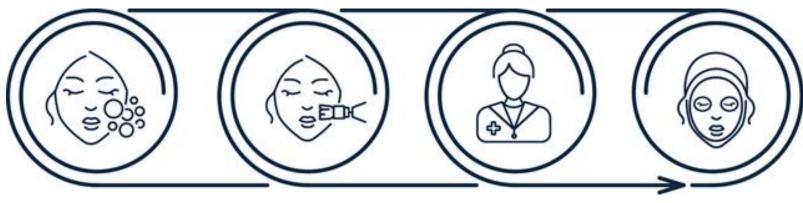
High recognition of BB laser Semipermanent equipment with no consumable Safe treatment with less Side effect High satisfaction of Patient with only one session **Ensure stability and** effectiveness through preclinical







#### Lavieen procedure



Cleansing

Cleanse skin waste before procedure

**Anesthesia** 

Apply anesthesia cream about 20-30 minutes for reducing patient's pain (Apply wrap for absorption of anesthetic cream) **Procedure** 

Proceed procedure after drying water (Cryo for pain relief at the same time) Post treatment

Calming care after applying Ampoule. Apply moisturizing or regenerating cream on dried skin after procedure





#### Q&A



Anesthesia cream is applied for 20-30 minutes before the procedure to relieve pain and is accompanied by a tingling pain during the procedure.

03 When can a patient expect to see the results?

Depending on the strength of the procedure, crust is usually created within 2 to 3 days, and t it is fell over 3 to 7 days. Patient experience brightness without crust.

05 What is the precautions after procedure?

02 How long does the procedure take?

It takes 30 minutes for anesthesia and 10 minutes for an entire procedure.

04 What is the procedure interval?

Every 4weeks are recommended.

You can experience outstand efficacy with only one session. You can remain the efficacy by periodic procedure.

On the day of procedure, there will be redness and burning sensation on the treated area. And redness can be last until next day.

Avoid the day's cleansing, cooling and calming care will be required to relieve the heat. And skin becomes dry due to the laser treatment, so apply moisturizing and regenerating cream from time to time.

Apply sunblock every 2-3 hours to protect the skin from ultraviolet rays.

Redness disappears over the time and do not take off the scabs intentionally. Avoid heavy exercise, sauna or hot bath for about 5 days





#### **Lavieen + Lavijue Program**

### " Manage with Lavijue after Lavieen treatment! "

Continuous care after laser treatment is important.

If post treatment care is neglected, problems such as hyperpigmentation may occur.

So Follow-up care is more important than anything else.

#### What is Lavijue?

- Solution which maximize the moisturizing, brightening, regeneration care.
- EGF, FGF, PDRN, Glutathione and other ingredients that can give moisturizing and whitening effects are

liposomized to increase penetration of the skin

#### \*Liposomalization

Capsulize the surrounding of the raw material, so it does not break down the raw material form as it is, but it is transferred into the skin as it is originally, enabling immediate whitening and moisture supply.



Cell regeneration

Brightening

Elasticity

Reduce pores

Fine lines

Skin tone



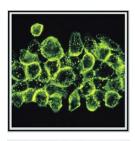


#### **Components of Lavijue Ampoule**



#### **ILIPOSOME**

Make raw materials into nano-sized capsules. A method for quickly and effectively absorbing raw materials



#### EGF/FGF

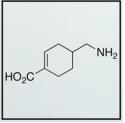
EGF which returns skin age such as overall skin tone, pore, elasticity

FGF, which works on collagen, elastin and hyaluronic acid, which are the three major components in the skin, to improve wrinkles and skin laxity.



#### PDRN(Polydeoxyribonucleotide)

A piece of DNA that is extracted from salmon and serves as the basis for the cell. A component that promotes DNA synthesis and promotes regeneration of damaged skin tissue when administered into living tissue



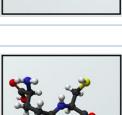
#### **TXA(Tranexamic Acid)**

Improvement of blemish and effective ingredient to treat melasma for giving help to recover damaged skin and skin barrier with skin convergence effect.



#### **γ-PGA(Polyglutamic Acid)**

Ingredients extracted from Cheonggukjang. It is a mucilage material that has a very high skin compatibility and a high water-solubility. Next generation moisturizing ingredients with five times higher moisture than HA

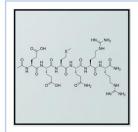


#### Brightening

공통성분

#### **Glutathione**

It is well-known as a porcelain injecting agent. It has the most similar components to the skin and has antioxidant properties. It gives vitality to the skin and helps to brighten



#### Acetyle Hexapeptide

It is well known for Botox applied. It has a small molecular structure and high stability, which helps to improvement of wrinkle caused by aging and contract the skin muscle



Wrinkle Care



#### **Components of Lavijue Ampoule**

#### [Brightening Ampoule]



Glutathione with excellent whitening gives skin vitality to make skin bright and highly concentrated growth factors EGF, FGF and PDRN effective for regeneration and high-moisture γ-PGA make skin elastic and volume.

#### [Wrinkle Care Ampoule]



Acetyle Hexapeptide with a function of wrinklefilling, smoothes the wrinkles of the face. Highly concentrated growth factors such as EGF, FGF, and PDRN, which are effective for regeneration, and high-moisture γ-PGA give skin with elasticity and volume.





#### Lavieen combination procedure and care



# **♥** Combination with Cryo Cooling

- Cryo Cooling combined with Lavieen treatment reduces pain and heat.
- Cools the surface of the skin to relieve pain and swelling. Cryo helps reduce pain and heat.



# Ampoule Care after procedure

- It is effective to use Ampoule
  Care to maximize the effect of
  Lavieen treatment with MTZ
  formed on the skin after the
  procedure
- Drug delivery effect is realized through the clinical parameter value
- You can see the maximum effect of Lavieen and Ampoule



- Calming and moisturizing care after treatment
- After procedure, the skin is extremely dry and sensitive, so strong calming / moisturizing is more important than anything else.
- Since skin regeneration occurs after the procedure, it is necessary to maintain a steady moisturizing treatment.
- When using Ampoule after the procedure, the Ampoule is fully absorbed, followed by calming and moisturizing care





#### **Lavieen Combination program**



#### **♥** Cryo for regeneration

- A rejuvenating treatment that enhances and increases the delivery of drugs to the extreme dry and sensitive skin after the laser.
- The principle of cooling the skin surface to penetrate drug into the <u>skin through</u> current stimulation



# Pigment treatment for epidermis and dermis

- CO2 Laser: The mole containing the pigment over the epidermis and dermis is treated by the combination of CO2 laser.
- Dye Laser : Severe epidermal pigment, a dark epidermal pigment can be treated by Lavieen with one or two sessions, or combined with a dye laser.
- Laser Toning: Dermal melasma can be treated by toning and brightening care.



#### Brightening and elasticity treatment at the same time

- HIFU: In case of fine wrinkles, decreased elasticity and skin sagging, lifting with HIFU is added to maximize lifting and tightening effect as well as brightening effect.
- Botox: Combining program that allows you to have efficacy of whitening and elasticity with Lavieen by having effect of elasticity and volume with Botox treatment





#### **Clinical Data : Pigmentation & Wrinkles**





**Before** 

**5days After 1 Tx Time** 





#### **Clinical Data : Pigmentation & Scar & Wrinkles**





**Before** 





### **Clinical Data : Pigmentation & Wrinkles**



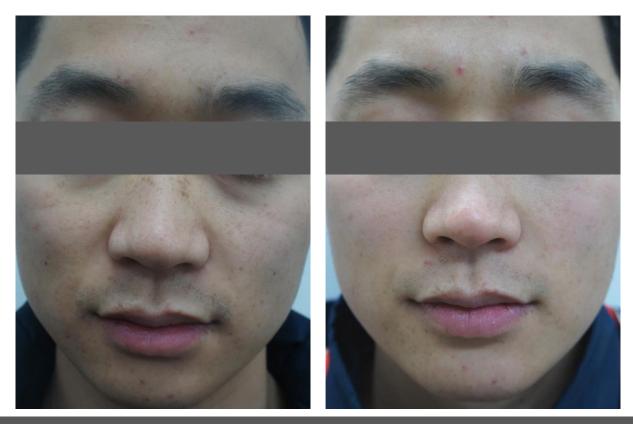


**Before** 





### **Clinical Data: Pigmentation & Resurfacing**



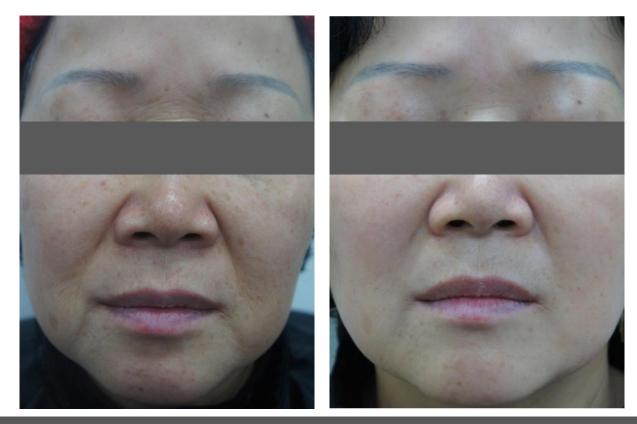


7days After 1 Tx Time





### **Clinical Data: Pigmentation & Resurfacing**

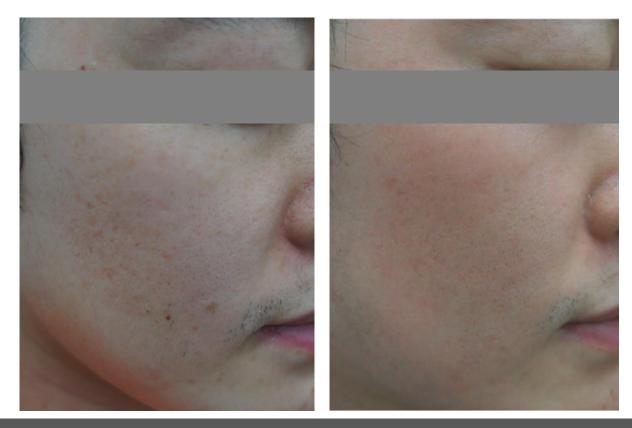


**Before** 





### **Clinical Data: Pigmentation & Resurfacing**



**Before** 





#### **Clinical Data: Pores**



Before





#### **Clinical Data: Acne Scars & Pigmentation**







### **Clinical Data : Pores & Pigmentation**





7days After 1 Tx Time



#### **Clinical Data: Wrinkles**





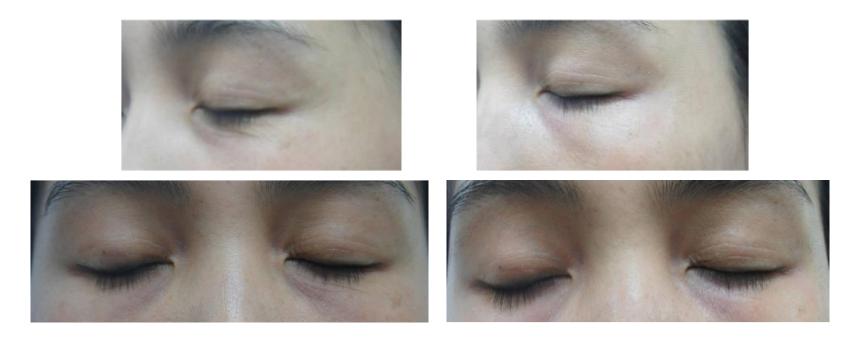
6days After 1 Tx Time





#### **Clinical Data: Wrinkles**

**Before** 



1000 µs, 10 watt, 0.7 mm distance, 2 x overlap





### **Clinical Data: Pigmentation**



**Before** 





### **Clinical Data: Pigmentation**



**Before** 





**Clinical Data: Pigmentation** 





**Before** 





**Clinical Data: PIH** 





Before

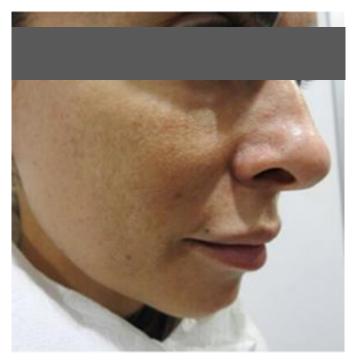
**6Months After 1 Tx Time** 

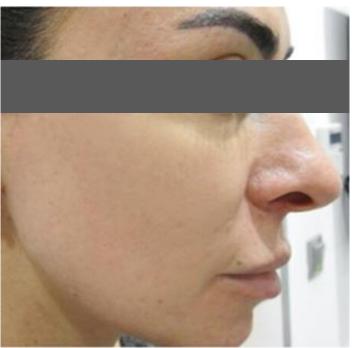
1200μs, 10watt, 1mm distance, 3 x overlap Photographs Courtesy of Serkan Ozturk, MD, Turkey





#### **Clinical Data: Large Pores**





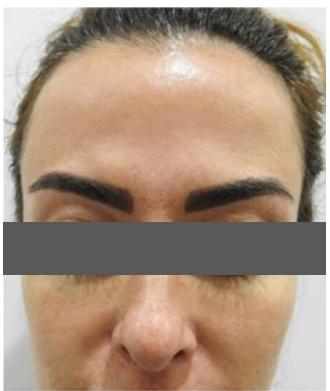
Before





#### **Clinical Data: Large Pores & Pigmentation**





Before





**Clinical Data: Burn Scar** 



**Before** 

2Months After 1 Tx Time





**Clinical Data: Burn Scar** 





**Before** 

1Months After 1 Tx Time



2000ms, 10watt, 1mm distance, 10 x overlap Photographs Courtesy of Serkan Ozturk, MD, Turkey



**Clinical Data: PIH** 





Before

**1Month After 1 Tx Time** 







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