

Summary

Wontech Hot Topic Discussion in Korea Derma 2019



Hot Topic Discussion in Korea Derma 2019

좌장 : 종로 에스앤유피부과 여운철 원장

PICOCARE	Skin rejuvenation, removal of scars, stretch marks pigments and tattoos with Picocare WonTech Laser	Dr. Klaus Fritz
PICOCARE & V-Laser	Synergy effect of PICOCARE and V-Laser	휴먼피부과 동탄점 진원우 원장
PICOCARE & PICOWON	Synergistic Effects of PICOCARE and PICOWON Lasers in Treatment of Pigmented Lesions	아카데미피부과 서종근 원장
Lavieen	Lavieen is a versatile fractional laser system that benefits both the physician and the patient	연세스타피부과 이상주 원장
Sandro Dual	Sequential Delivery of Long-Pulsed 755-nm Alexandrite Laser and Long-Pulsed 1,064-nm Nd:YAG Laser Treatment for Pigmented Disorders	연세세란피부과 조성빈 원장

Device : PICO CARE

Speaker : Dr. Klaus Fritz

Skin rejuvenation, removal of scars, stretch marks pigments and tattoos with Picocare WonTech Laser

1) Features of PICO CARE

2) Tattoo Removal

3) Lentigines

4) Nail Rejuvenation (Onychomycosis, Nail Fungus)

Features of PICO CARE

1. Pico vs Nano technology

- Nano : Selective photothermolysis (Thermal diffusion, tissue damage correlated to total energy)
- Pico : Selective Photothermolysis < photoacoustic destruction (Less thermal diffusion, Less heat Less pain, precise ablation, Less PIH)

2. Wavelengths and indications of PICO CARE

- 532 (Light color tattoo epidermal pigmentation) , 1064 (Dark color tattoo, dermis pigmentation, Skin & nail rejuvenation, Scar, Pore), 595 (Vascular lesion), 660 (Blue & Green tattoo removal)

3. Melasma

- Nanos often rather increase pigmentation in skin type > 3
- Picocare due to short pulse cause less PIH and is more effective
- 1064nm, Small spot for superficial melasma, larger for deeper melasma

4. Ageing skin and wrinkles with Pico laser

- Pigment improvement was rated as high-moderate
- Post treatment erythema lasted only for hours on average
- Histology demonstrated increase of collagen and elastin

5. Acne scarring with Pico laser

- 25% improvement after a series of Tx's, with minimal patient downtime
- Pigment lightening and dermal remodeling (visual & histological evidence)

6. Basal cell carcinoma and Laser

- Most frequent successful wavelength = 1064nm Long pulsed + photomechanical disruption(Picosecond laser)

Parameters for Tattoo Removal

Before



After 8 weeks



Total: 3 sessions

1. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 5Hz, 1 pass
2. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 5Hz, 1 pass
1064nm, 4mm, $2.8\text{J}/\text{cm}^2$, 5Hz, 1 pass
3. 1064nm, 4mm, $2.8\text{J}/\text{cm}^2$, 5Hz, 1 pass
1064nm, 4mm, $3.0\text{J}/\text{cm}^2$, 5Hz, 1 pass

Before



After 8 weeks



Total : 2 sessions

1. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 10Hz, 1 pass
2. 1064nm, 5mm, $2.3\text{J}/\text{cm}^2$, 7Hz, 1 pass

Before



After 4 weeks



Total : 3 sessions

1. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 10Hz, 1 pass
2. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 10Hz, 1 pass
3. 1064nm, 4mm, $2.5\text{J}/\text{cm}^2$, 10Hz, 2 passes

Parameters for Lentigines

Before



After 4 weeks



Before



After 4 weeks



Before



After 4 weeks



Before



After 4 weeks



Lentigines

1. L532, 3mm, 0.5J/cm², 10Hz, 1session

Parameters for Nail Rejuvenation

Before



After



Onychomycosis

1. 1064nm, 7mm, 2J/cm², 4 passes, 3sessions

Before



After



Nail Fungus

1. 1064nm, 7mm, 2J/cm², 4 passes, 3sessions

Device : PICO CARE & V-Laser

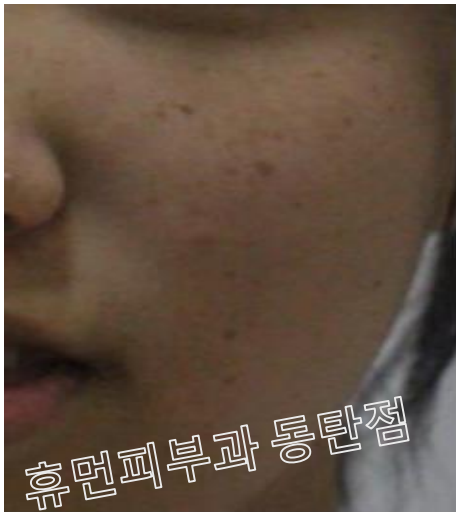
Speaker : 진원우 원장

Synergy effect of PICO CARE and V-Laser

- 1) Pigmentation and Brightening
- 2) Alleviation of Erythema after PICO CARE MLA Treatment
- 3) Skin Rejuvenation
- 4) Other Treatments (Vascular Lesions, Pigmented Lesions)

Parameters for Pigmentation and Brightening

Before



After



2주 간격, 10회 방문 프로그램

1, 6회 차 방문 시 시술

[V-Laser]

Lentigines

1. 532nm, 3-5mm, 10ms, 9-10J/cm²

Brightening

1. 532nm, 10mm, 10ms, 5-6J/cm², whole face, 200shots

2-5, 7-10회 차 방문 시 시술

[V-Laser]

Genesis

1. 1064nm, 8mm, 0.3ms, 7J/cm², 10Hz, 2000shots

[PICOCARE]

Lentigines

1. 1064nm, 6mm, 1.2J/cm², 10Hz (On lesions, 1-2sec)

Toning

1. 1064nm, 8mm, 0.7J/cm², whole face, 10Hz

Parameters for Alleviation of Erythema after PICOCARE MLA

Before



After



[PICOCARE_MLA]

Scar

1. 1064nm, 4mm, $3.0\text{J}/\text{cm}^2$ -, 3-4Hz, 4-5 stacking
2. 1064nm, 8mm, $1.0\text{J}/\text{cm}^2$ -, 3-4Hz, 4-5 stacking

Facial Pore, Skin Rejuvenation

1. 1064nm, 8mm, $0.3\text{J}/\text{cm}^2$ -, 8-10Hz, 1000-2000 shots

[V-Laser]

Erythema after PICOCARE MLA Treatment

1. 532nm, 10mm, 10ms, $5.0\text{J}/\text{cm}^2$, 2Hz, whole face, 2passes, 200shots

Parameters for Skin Rejuvenation

Before

After



Skin texture & fine wrinkle
/ PICO CARE MLA & V-Laser Genesis & Tightening



Facial pores & diffuse redness
/ PICO CARE MLA & V-Laser Brightening

2-4주 간격, 5회 방문 프로그램

매 회 방문 시 시술

[V-Laser]

Genesis

1. 1064nm, 8mm, 0.3ms, 7J/cm², 10Hz, 2000shots

Tightening

1. 1064nm, 10mm, 40ms, 25J/cm², 2Hz, 200shots

[PICO CARE_MLA]

Facial Pore, Skin Rejuvenation

1. 1064nm, 8mm, 0.3J/cm², 10Hz, 1500shots

Other Parameters

Before



휴먼피부과 동탄점

After



Rosacea / 5 sessions

Before



휴먼피부과

After



휴먼피부과 동탄점

Lentigines & PIH / 1 session

Vascular Lesions

[V-Laser]

Diffuse Redness

1. 532nm, 10mm, 10ms, 5-6J/cm²

Rosacea

1. 532nm, 5mm, 5ms, 6J/cm²

Acne Redness

1. 532nm, 5mm, 5ms, 6J/cm²

Pigmented Lesions

[PICOCARE]

Freckles, Lentigines (Epidermal)

1. 532nm, 3-4mm, 0.3-0.4J/cm²

ABNOM, Nevus of Ota (Dermal)

1. 1064nm, 4mm, 2.5J/cm²

Device : PICO CARE & PICO WON

Speaker : 서종근 원장

Synergistic effects of PICO CARE and PICO WON lasers in treatment of pigmented lesions

1) Synergistic Effects of PICO CARE and PICO WON for Pigmentations

2) PICO CARE with MLA / MLA + DYE(660nm)

3) PICO WON with MLA

4) Combination of PICO CARE and PICO WON

Synergistic Effects of PICOCARE and PICOWON for Pigmentations

1) PICOCARE with MLA H/P

[Parameters]

1. 국소병변(focal): 6mm spot, $0.5\text{J}/\text{cm}^2$, 10Hz, 5-10shots stacking
2. 얼굴 전체/기미(entire face/melasma): 10mm spot, $0.2\text{-}0.3\text{J}/\text{cm}^2$, 10Hz, 1000-1500shots

[Tips]

1. 팁 가이드 끝을 약 2mm 정도 빼고, 피부에 붙여서 시술
2. Dye H/P로 595nm, 660nm 등의 다른 파장 구현 가능 – multicolored tattoos 제거에 탁월

2) PICOWON

[Parameters]

1. 국소병변(focal):
 - 1) 표피 병변(epidermal): MLA H/P, 3-4mm spot, $1.5\text{-}2.1\text{J}/\text{cm}^2$, 3Hz, 2-5 shots stacking
 - 2) 진피 병변(dermal): Zoom H/P, 3-4mm spot, $2.1\text{-}2.7\text{J}/\text{cm}^2$, 3Hz, 2-5 shots stacking
2. 얼굴 전체/기미(entire face/melasma): MLA H/P, 8mm, $0.4\text{J}/\text{cm}^2$, 2passes

[Tips]

1. PICO 1064/532/660nm로 해결되지 않던 색소 병변에 더 안전하고 탁월하게 제거

Parameters of PICO CARE with MLA

Before

After



PIH after IPL treatment / 2 sessions(2weeks interval)



Skin rejuvenation / 1 session(after 2 weeks)



Skin pigmentation / 3 sessions(2weeks interval)

PIH

1. Focal: MLA, 6mm, $0.5\text{J}/\text{cm}^2$, 5-10 shots stacking
2. Entire face: MLA, 10mm, $0.2\text{J}/\text{cm}^2$, 1500 shots

Skin brightening, texture improving

1. Focal: MLA, 6mm, $0.5\text{J}/\text{cm}^2$, 5-10 shots stacking
2. Entire face: MLA, 10mm, $0.3\text{J}/\text{cm}^2$, 1500 shots

Skin pigmentations

1. Focal: MLA, 6mm, $0.5\text{J}/\text{cm}^2$, 5-10 shots stacking
2. Entire face: MLA, 10mm, $0.3\text{J}/\text{cm}^2$, 1300 shots

Parameters of PICO CARE with MLA + DYE(660nm)

Before

After



Freckles and ABNOM / 4 sessions(3-4weeks interval)



Skin Pigmentations / 4 sessions(3-4 weeks interval)

Freckles and ABNOM

1. Focal: DYE(660nm), $0.4\text{J}/\text{cm}^2$, 1 pass
2. Entire face: MLA, 10mm, $0.2\text{J}/\text{cm}^2$, 1500 shots

Skin brightening, texture improving

1. Focal: DYE(660nm), $0.4\text{J}/\text{cm}^2$, 1 pass
2. Entire face: MLA, 10mm, $0.2\text{J}/\text{cm}^2$, 1500 shots

Parameters of PICOWON with MLA

Before

After



Melasma and ABNOM/ 1 session(after 2 weeks)



Lentigo, melasma and ABNOM/ 1 session(after 3 weeks)

Melasma and ABNOM

1. Focal: MLA, 3.5mm, $2.0\text{J}/\text{cm}^2$, 1 pass
2. Entire face: MLA, 8mm, $0.4\text{J}/\text{cm}^2$, 2 passes

Lentigo simplex, melasma and ABNOM

1. Focal: MLA, 3.5mm, $2.0\text{J}/\text{cm}^2$, 1 pass
2. Entire face: MLA, 8mm, $0.4\text{J}/\text{cm}^2$, 2 passes

Parameters of Combination of PICO CARE and PICO WON

Before

After



Dermatosis papulosa nigra, lentigo simplex, skin tone and enlarged pore/ 5 sessions(2-4weeks interval)



PIH, lentigo simplex, melasma, ABNOM, skin tone and texture/ 6 sessions(2-4weeks interval)

Pigmented Lesions

[PICO CARE]

1. Focal: MLA, 6mm, $0.5\text{J}/\text{cm}^2$, 2-5 shots stacking
2. Entire face: MLA, 10mm, $0.2\text{J}/\text{cm}^2$, 1500 shots

[PICO WON]

1. Focal: MLA, 3.5mm, $2.0\text{--}2.1\text{J}/\text{cm}^2$, 2-3 shots stacking



Lentigo simplex, melasma, skin tone and texture / 6 sessions(2-3weeks interval)

Device : Lavieen

Speaker : 이상주 원장

Lavieen is a versatile fractional laser system
that benefits both the physician and the patients

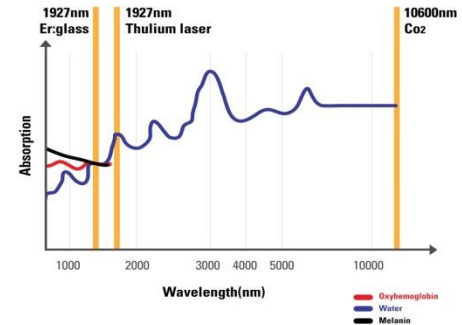
1) Features of Lavieen

2) Parameters of Lavieen

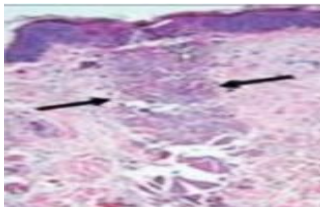
Features of Lavieen

1) Lavieen's wavelengths

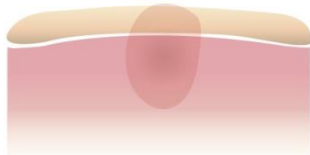
- About 10 times higher moisture absorption than Er:Glass
- Remove melanin pigment from the basal floor by evaporation of skin moisture which absorbs laser energy and temperature rises rapidly
- Remove epidermis melanin pigment and brightening effect at the same time as a fine scab after heat damage



2) Lavieen with Non-ablation & ablation (Both features of Er:Glass and Co2)

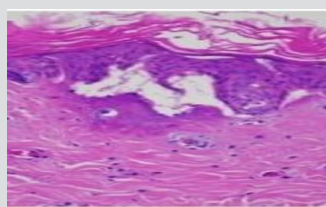


1550nm Er:Glass



Non-ablative

Water absorption low, depth is deep, but does not give a definite dye treatment effect

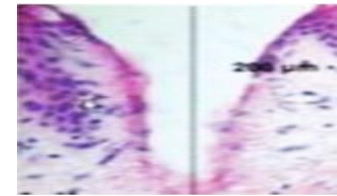


1927nm Thulium



Non-ablative / Ablative

As the middle of the Er:glass and the Co2 laser in water absorption, the keratin layer is preserved, the penetration depth is 0.15 ~0.3 mm, depending on the amount of energy ablation/non-ablation is possible



10600nm Co2



Ablative

Ablation from the keratin layer to damage the skin barrier. Recovery period is longer and likely side effects such as pigmentation, redness, etc.

Parameters of Lavieen

Pigmented Lesions

Melasma, PIH

1. Moving(normal): $800\mu s$, 10W, 0.7mm, 6-8 passes

Scars

Burn/ pigmented/ red colored scars (after operation)

1. Moving(normal): $800\mu s$, 10W, 0.7mm, 6-8 passes

Combined Treatment with PDL

Early scar with PIH, Red colored scar

1. Lavieen - Moving(normal): $800\mu s$, 10W, 0.7mm, 6-8 passes
2. V-Beam(PDL) : 3ms, 7J, 7mm

Conclusion

- If melasma is not the first choice, but it is not responding to the treatment, consider second choice.
- Lavieen is effective in treatment of mild scar, especially when accompanied by pigmentation.
- Lavieen's drug delivery system can be used effectively for skin care.

Device : Sandro Dual

Speaker : 조성빈 원장

Sequential Delivery of Long-Pulsed 755-nm Alexandrite Laser and Long-Pulsed 1,064-nm Neodymium:Yttrium-Aluminum-Garnet Laser Treatment for Pigmented Disorders

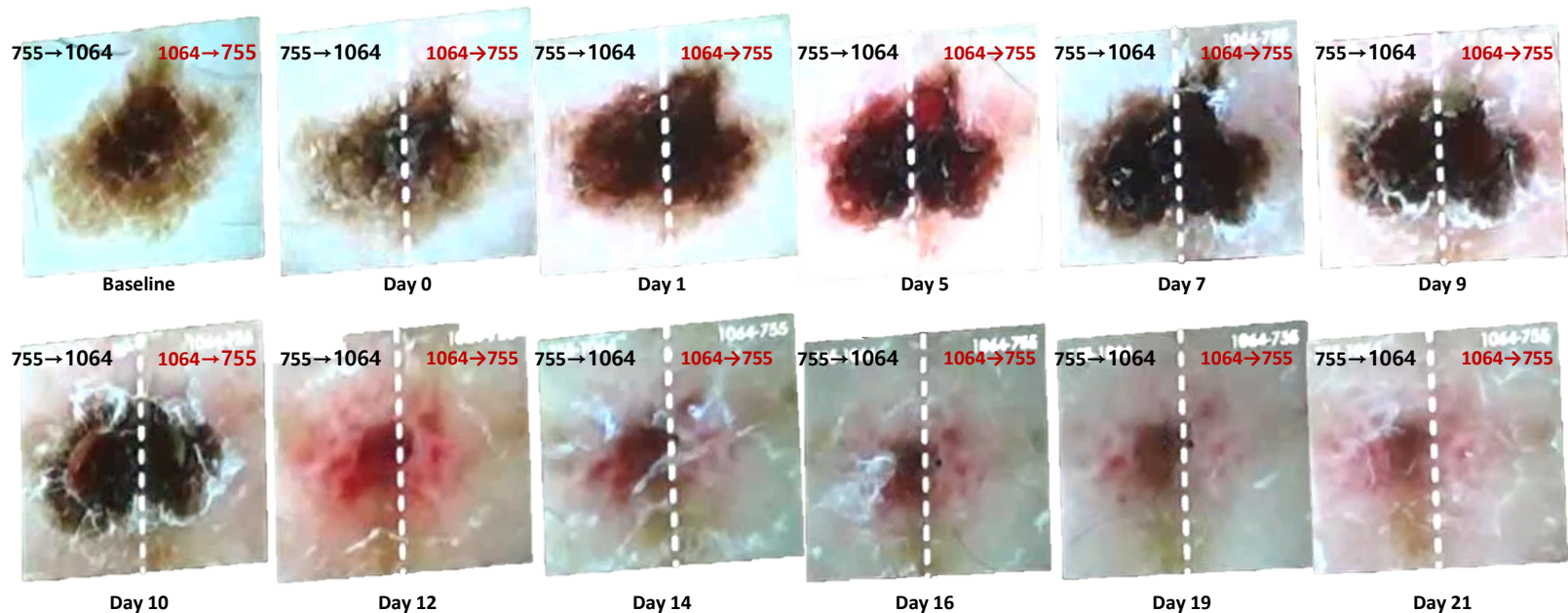
1) SANDRO DUAL's Hybrid Mode

2) Parameters of SANDRO DUAL

Summary of SANDRO DUAL's Hybrid Mode

1. 색소 치료 시, 1064→755nm 연속 조사가 755nm → 1064nm보다 효과적

- 1) 1064nm → 755nm 연속 조사 시, crust가 먼저 탈각되며, 붉음증이나 남은 색소도 더 적음
- 2) 1064nm로 깊은 곳의 색소까지 먼저 건드리고, 755nm로 전체적인 색소 제거 가능 (core pigment가 더 잘 분해됨)



Sandro Dual (Hybrid mode):

LP Nd:YAG (5ms, 50J/cm²) + LP Alexandrite (5ms, 50J/cm²) or LP Alexandrite (5ms, 50J/cm²) + LP Nd:YAG (5ms, 50J/cm²), 20ms intervals, Single pass

Summary of SANDRO DUAL's Hybrid Mode

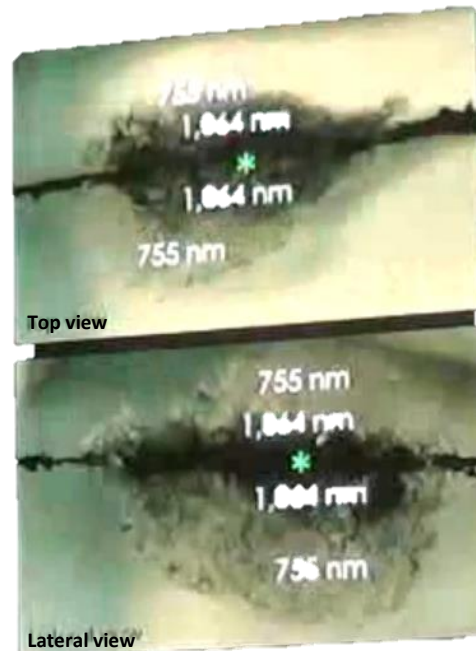
2. Hybrid를 이용한 연속 조사 시, 두 파장 간의 intervals은 20ms가 효과적

- 1) Interval 이 더 길 경우(100ms, 200ms)에도 색소 파괴는 잘 되는 편이나, 표면 쪽에 원치 않는 tissue damage 발생 가능

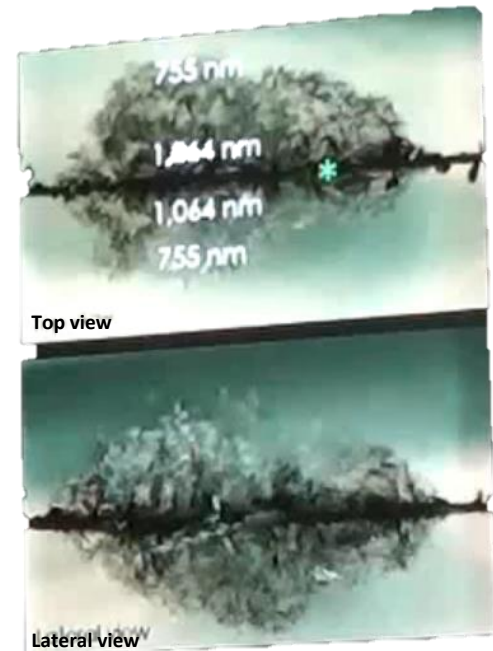
Nd:YAG – 20ms - Alexandrite



Nd:YAG – 100ms - Alexandrite



Nd:YAG – 200ms - Alexandrite



Sandro Dual (Hybrid mode):

LP Nd:YAG (5ms, 30J/cm²) + LP Alexandrite (5ms, 30J/cm²), 20ms, 100ms or 200ms intervals, 7mm spot size, Single pass

Parameters of SANDRO DUAL

Before



After



Pigmented Lesions

[SANDRO DUAL (Hybrid mode)]

1. LP Nd:YAG (5ms, 50J/cm²) + LP Alex (5ms, 50J/cm²),
20ms, 3mm spot size, DCD off, single pass

Conclusion

- SANDRO DUAL의 장점

- 1) 한 위치에 짧은 시간 안에 두 가지 파장(755, 1064nm) 연속 조사 가능(Hybrid mode)
; 시너지 효과 및 짧은 치료 시간
- 2) 피부 손상 최소화
- 3) 색소, 제모 치료에 탁월

THANK YOU