Wontech Hot Topic Discussion in Korea Derma 2019
## Hot Topic Discussion in Korea Derma 2019

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<td>Lavieen is a versatile fractional laser system that benefits both the physician and the patient</td>
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Skin rejuvenation, removal of scars, stretch marks, pigments and tattoos with Picocare WonTech Laser

1) Features of PICOCARE

2) Tattoo Removal

3) Lentigines

4) Nail Rejuvenation (Onychomykosis, Nail Fungus)
# Features of PICOCARE

## 1. Pico vs Nano technology

- **Nano**: Selective photohemolysis (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 PICOCARE

- 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
- 1064mn, 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 Txs, 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

**Total: 3 sessions**

1. 1064nm, 4mm, 2.5J/cm², 5Hz, 1 pass
2. 1064nm, 4mm, 2.5J/cm², 5Hz, 1 pass
3. 1064nm, 4mm, 2.8J/cm², 5Hz, 1 pass

**Total: 2 sessions**

1. 1064nm, 4mm, 2.5J/cm², 10Hz, 1 pass
2. 1064nm, 5mm, 2.3J/cm², 7Hz, 1 pass

**Total: 3 sessions**

1. 1064nm, 4mm, 2.5J/cm², 10Hz, 1 pass
2. 1064nm, 4mm, 2.5J/cm², 10Hz, 1 pass
3. 1064nm, 4mm, 2.5J/cm², 10Hz, 2 passes
Parameters for Lentigines

1. L532, 3mm, 0.5J/cm², 10Hz, 1 session
Parameters for Nail Rejuvenation

**Onychomykosis**

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

**Nail Fungus**

1. 1064nm, 7mm, 2J/cm², 4 passes, 3 sessions
Synergy effect of PICOCARE and V-Laser

1) Pigmentation and Brightening

2) Alleviation of Erythema after PICOCARE MLA Treatment

3) Skin Rejuvenation

4) Other Treatments (Vascular Lesions, Pigmented Lesions)
Parameters for Pigmentation and Brightening

**Before**

**After**

1. **Lentigines**
   - 532nm, 3-5mm, 10ms, 9-10J/cm²

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

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**2주 간격, 10회 방문 프로그램**

**1, 6회 차 방문 시 시술**

**[V-Laser]**

<table>
<thead>
<tr>
<th>Lentigines</th>
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<tbody>
<tr>
<td>1. 532nm, 3-5mm, 10ms, 9-10J/cm²</td>
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<table>
<thead>
<tr>
<th>Brightening</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 532nm, 10mm, 10ms, 5-6J/cm², whole face, 200shots</td>
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**2-5, 7-10회 차 방문 시 시술**

**[V-Laser]**

<table>
<thead>
<tr>
<th>Genesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1064nm, 8mm, 0.3ms, 7J/cm², 10Hz, 2000shots</td>
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</tbody>
</table>

**[PICOCARE]**

<table>
<thead>
<tr>
<th>Lentigines</th>
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<tbody>
<tr>
<td>1. 1064nm, 6mm, 1.2J/cm², 10Hz (On lesions, 1-2sec)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toning</th>
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<tbody>
<tr>
<td>1. 1064nm, 8mm, 0.7J/cm², whole face, 10Hz</td>
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Parameters for Alleviation of Erythema after PICOCARE MLA

**PICOCARE MLA**

**Scar**
1. 1064nm, 4mm, 3.0J/cm², 3-4Hz, 4-5 stacking
2. 1064nm, 8mm, 1.0J/cm², 3-4Hz, 4-5 stacking

**Facial Pore, Skin Rejuvenation**
1. 1064nm, 8mm, 0.3J/cm², 8-10Hz, 1000-2000 shots

**V-Laser**

**Erythema after PICOCARE MLA Treatment**
1. 532nm, 10mm, 10ms, 5.0J/cm², 2Hz, whole face, 2passes, 200shots
Parameters for Skin Rejuvenation

**Before**

**After**

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

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

**[PICOCARE_MLA]**

**Facial Pore, Skin Rejuvenation**
1. 1064nm, 8mm, 0.3J/cm², 10Hz, 1500 shots

**Facial pores & diffuse redness**

/ PICOCARE MLA & V-Laser Brightening

**Skin texture & fine wrinkle**

/ PICOCARE MLA & V-Laser Genesis & Tightening

2-4 주 간격, 5회 방문 프로그램

매 회 방문 시 시술

[V-Laser]

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

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

**[PICOCARE_MLA]**

**Facial Pore, Skin Rejuvenation**
1. 1064nm, 8mm, 0.3J/cm², 10Hz, 1500 shots

**Facial pores & diffuse redness**

/ PICOCARE MLA & V-Laser Brightening
### Other Parameters

**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

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**Before**

- **Rosacea** / 5 sessions

**After**

- **Lentigines & PIH** / 1 session
Synergistic effects of PICOCARE and PICOWON lasers in treatment of pigmented lesions

1) Synergistic Effects of PICOCARE and PICOWON for Pigmentations

2) PICOCARE with MLA / MLA + DYE(660nm)

3) PICOWON with MLA

4) Combination of PICOCARE and PICOWON
### Synergistic Effects of PICOCARE and PICOWON for Pigmentations

#### 1) PICOCARE with MLA H/P

**[Parameters]**

1. 국소병변(focal): 6mm spot, 0.5J/cm², 10Hz, 5-10 shots stacking
2. 얼굴 전체/기미(entire face/melasma): 10mm spot, 0.2-0.3J/cm², 10Hz, 1000-1500 shots

**[Tips]**

1. 틱 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, 1.5-2.1J/cm², 3Hz, 2-5 shots stacking
   2) 진피 병변(dermal): Zoom H/P, 3-4mm spot, 2.1-2.7J/cm², 3Hz, 2-5 shots stacking
2. 얼굴 전체/기미(entire face/melasma): MLA H/P, 8mm, 0.4J/cm², 2 passes

**[Tips]**

1. PICO 1064/532/660nm로 해결되지 않던 색소 병변에 더 안전하고 탁월하게 제거
Parameters of PICOCARE with MLA

**PIH**
1. Focal: MLA, 6mm, 0.5J/cm², 5-10 shots stacking
2. Entire face: MLA, 10mm, 0.2J/cm², 1500 shots

**Skin brightening, texture improving**
1. Focal: MLA, 6mm, 0.5J/cm², 5-10 shots stacking
2. Entire face: MLA, 10mm, 0.3J/cm², 1500 shots

**Skin pigmentations**
1. Focal: MLA, 6mm, 0.5J/cm², 5-10 shots stacking
2. Entire face: MLA, 10mm, 0.3J/cm², 1300 shots
Parameters of PICOCARE with MLA + DYE(660nm)

Before After

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

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

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

Freckles and ABNOM
1. Focal: DYE(660nm), 0.4J/cm\(^2\), 1 pass
2. Entire face: MLA, 10mm, 0.2J/cm\(^2\), 1500 shots

Skin brightening, texture improving
1. Focal: DYE(660nm), 0.4J/cm\(^2\), 1 pass
2. Entire face: MLA, 10mm, 0.2J/cm\(^2\), 1500 shots
Parameters of PICOWON with MLA

**Melasma and ABNOM**
1. Focal: MLA, 3.5mm, 2.0J/cm$^2$, 1 pass
2. Entire face: MLA, 8mm, 0.4J/cm$^2$, 2 passes

**Lentigo simplex, melasma and ABNOM**
1. Focal: MLA, 3.5mm, 2.0J/cm$^2$, 1 pass
2. Entire face: MLA, 8mm, 0.4J/cm$^2$, 2 passes
Parameters of Combination of PICOCARE and PICOWON

**Before**

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

**After**

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

**Pigmented Lesions**

**[PICOCARE]**
1. Focal: MLA, 6mm, 0.5J/cm², 2-5 shots stacking
2. Entire face: MLA, 10mm, 0.2J/cm², 1500 shots

**[PICOWON]**
1. Focal: MLA, 3.5mm, 2.0-2.1J/cm², 2-3 shots stacking
2. Lentigo simplex, melasma, skin tone and texture / 6 sessions (2-3 weeks interval)
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)

**Non-ablative**

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

**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

**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 µs, 10W, 0.7mm, 6-8 passes

**Scars**

Burn/ pigmented/ red colored scars (after operation)

1. Moving(normal): 800 µs, 10W, 0.7mm, 6-8 passes

**Combined Treatment with PDL**

Early scar with PIH, Red colored scar

1. Lavieen - Moving(normal): 800 µs, 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.
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

Device: Sandro Dual
Speaker: 조성빈 원장
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) Interval이 더 길 경우(100ms, 200ms)에도 색소 파괴는 잘 되는 편이나, 표면 쪽에 원치 않는 tissue damage 발생 가능

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