

## Clinical Applications - Cutaneous - *Pigment*

### ENHANCED TREATMENT OF MELASMA WITH COMBINED SURFACE AND DIFFRACTIVE LENS OPTICS

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**Background:** Melasma is very difficult to treat. Results with picosecond lasers is encouraging but may not be successful longer term. This study was performed to investigate whether surface and subsurface optics would enhance results.

**Study Design/Materials and Method:** In this study 24 patients with significant melasma were treated with both a diffractive lens array lens ( $0.71 \text{ J/cm}^2$ ) and a surface optic ( $2 \text{ J/cm}^2$ ) for a series of 4 treatments using a 755nm picosecond laser. Treatments were performed at 4 week intervals.

**Results:** Results indicated significant reduction of pigment intensity as measured by UV photography in 18/24 subjects. Moderate reduction was observed in 4 patients and 2 had no improvement. Images were judged by blinded ratings at 6 months. No adverse events were recorded.

**Conclusion:** Dual passes with both diffractive lens and surface optics show significant effect on melasma. This dual pass treatment shows promise for improving results on a difficult clinical presentation. More clinical observation at one year is currently being pursued.

