Photoepilation Results of Axillary Hair in Dark-Skinned Patients by Intense Pulsed Light: Comparison between Different Wavelengths and Pulse Widths

JONG HEE LEE, MD, PHD,• CHANG HUN HUH, MD,• HO JOON YOON, MD, PHD,• KWANG HYUN CHO,• AND JIN HO CHUNG, MD, PHD•

BACKGROUND:
Recently, intense pulsed light (IPL) sources have been shown to provide long-term hair removal.

OBJECTIVE:
This study examined the photoepilatory effects of different wavelengths and pulse width application in the same IPL device and compared their efficiencies in Asian skin.

METHODS:
Twenty-eight Korean women were treated using hair removal (HR) (600-950 nm filter) and 27 using HR-D (645-950 nm filter) in the axillary area. Four treatments were carried out at intervals of 4 to 6 weeks; follow-ups were conducted 8 months after the last treatment. Mean energy settings were 14.9 ± 2.0 J/cm² for HR and 17.1 ± 0.6 J/cm² for HR-D. Longer pulse widths were applied in case of HR-D treatment. Hair counts and photographic evaluation of skin sites were made at baseline and at the last follow-up. Final overall evaluations were performed by patients and clinicians.

RESULTS:
Average clearances of 52.8% and 83.4% were achieved by HR and HR-D, respectively. No significant adverse effects were reported after HR-D treatment. One case each of hypopigmentation and hyperpigmentation was reported for HR.

CONCLUSION:
An IPL source removing 45 nm of the emitted spectra and applying a longer pulse width was found to provide a safer and more effective means of photoepilation in Asian patients.