LASERS

COMPARISON OF EFFICACY AND SAFETY OF A NOVEL 755-NM DIODE LASER WITH CONVENTIONAL 755- NM ALEXANDRITE LASER IN REDUCTION OF AXILLARY HAIRS

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Background and aims: Unwanted hair is a common concern for men and women. Alexandrite and diode lasers are the most popular hair removal systems with various benefits and limitations. The aim of this study was to compare the efficacy and safety of a novel diode system emitting 755 nm wavelength with conventional 755 nm alexandrite laser in skin types III and IV.

Material & methods: It was a randomized, right-left comparison, assessor-blind, clinical study. 16 healthy female volunteers age 29.52 ± 9.52 were randomly assigned to receive 6 treatment sessions using 755 nm diode laser on one axilla and 755 nm alexandrite on the opposite axilla.
Efficacy was assessed by counting of hairs per cm2, six months after the last treatment. Treatment outcome was also evaluated by blind reviewing of before and after pictures, using Physician Global Assessment scale (GAS).
Subject satisfaction was assessed using a 10 grade visual analogue scale (VAS). Pain level and adverse effects were also recorded.

Results: Significant reduction in hair count was observed, 6 month after last treatment session, for both devices (-33% for 755 nm diode and -35. % for conventional 755 nm alexandrite; p value=0.85).
The mean score for GIAS score was 2.66 for alexandrite treated side vs. 2.00 for diode treated side which showed significant higher improvement after treatment with alexandrite laser (p-value= 0.036).
No sever adverse events were reported. The pain level did not show significant difference.
The subject satisfaction score was higher after treatment with conventional alexandrite laser and the difference was statistically significant (0.01).

Conclusion: Current study showed that the 755 nm diode laser is suitable for hair removal procedures and it is almost as effective and safe as the conventional 755 nm alexandrite laser in darker skin types.