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LASER HAIR REMOVAL WITH MEDIOSTAR DIODE LASER

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The purpose of the study is to evaluate the efficacy and safety of the MeDioStar diode laser for hair removal.

Twenty patients were enrolled. All had unwanted hair of brown or black color. Skin types ranged from I-IV. Body location included axillae, beard, chin, neck, and legs. Exclusion criteria included: white, gray, blonde, or red hair, skin type V or VI, tan skin, history of keloid formation, history of plucking within the last 6 weeks, and history of endocrine disorder. A hair count within a 1.5 x 1.5 cm area was performed prior to each treatment session. Photographs were taken of the treatment area. The hair was shaved prior the treatment. Treatment was given with the MeDioStar laser using the contact cooling handpiece (810 nm, 12 mm spot, pulse duration 100-140 ms, fluence up to 44 J/cm²). The highest tolerated fluence that produced the endpoint of erythema and perifollicular edema was used.

Treatment was given with one pass and minimal overlap. Patients rated pain during treatment on a scale of 1-10. Patients returned for two additional treatment sessions approximately six weeks apart using the same protocol as above. Treated areas were examined for any side effects, including erythema, hyperpigmentation, hypopigmentation, and scarring. Patients returned for follow-up 6 weeks, 3 months 6 months, and 12 months after their final treatment session. Photographs and hair counts were performed at each follow-up visit. Patients and investigators independently rated results on a scale of 0 (no change), 1 (up to 25% hair reduction), 2 (26-50% reduction), 3 (51-75% reduction), and 4 (76-100% reduction).

The results showed that the MeDioStar diode laser achieved long-lasting hair reduction in most patients after three treatment sessions. hair of thicker caliber responded most readily. Pain during treatment was greater in patients with darker hair, denser hyperpigmentation, hypopigmentation, persistent erythema, or scarring.

In conclusion, the MeDioStar diode laser is safe and effective in treating brown or black hair in skin type I-IV.