

LASER TREATMENT OF MELANOCYTIC NEVI: CLINICAL CONSIDERATIONS AND REVIEW OF THE EVIDENCE

Gaurav Singh

New York University, USA

Anevus is a benign, pigmented, skin growth that can be acquired or congenital. Various types of nevi exist, and can be present at various skin depths. Treatments have included topical therapies, dermabrasion, and excision. However, these are often ineffective or invasive, and results in scarring. Laser therapy is increasingly used because the principle of selective photothermolysis allows the melanin to be specifically targeted with increasing treatment efficacy and minimizing adverse outcomes. However, laser treatment of melanocytic nevi (MN) remains controversial. Lack of confirmatory histologic diagnosis of the treated lesion, inability to assess margins, inability to clinically monitor the lesion, and the possibility of misidentifying a melanoma as a nevus are causes for concern. The likelihood of misdiagnosis can be reduced with the use of dermoscopy and reflectance confocal microscopy. Although pigmentation may recede clinically with laser treatment, melanocytes persist in the dermis. These melanocytes can generate recurrent nevi, which have clinical and dermoscopic features mimicking melanoma: making surveillance difficult. Laser should therefore be avoided in patient populations with increased melanoma risk and lesions with questionable appearance. The lesion's suitability to laser must also be considered: thin, macular, and superficial MNs are more effectively treated with lower recurrence rates than MN with dermal or compound components. Q-switched ruby, alexandrite, and Nd: YAG lasers have effectively treated acquired and congenital melanocytic nevi. More favourable results are achieved with smaller and thinner lesions. Complete removal of congenial nevi is difficult, and they are more likely to recur; nonetheless, they can be lightened. Non-Q-switched long-pulsed ruby and alexandrite lasers can also treat acquired MNs. However, long-pulse lasers present an increased risk of thermal injury, dyspigmentation, and scarring as more energy is deposited into the skin.

Biography

Gaurav Singh earned his Doctor of Medicine (MD) and Master of Public Health (MPH) degrees at the University of Miami Miller School of Medicine, and is now at New York University. He has published several papers in high-impact journals and spoken in international audiences on various facets of dermatology such as disease management, epidemiology, patient safety, and quality care.

Gaurav.singh@nyumc.org