Abstract

Although frequently performed, laser removal of pigmented lesions still contains certain controversial issues. Epidermal pigmented lesions include solar lentigines, ephelides, café au lait macules and seborrheic keratoses. Dermal lesions include melanocytic nevi, blue nevi, drug induced hyperpigmentation and nevus of Ota and Ito. Some lesions exhibit both an epidermal and dermal component like Becker’s nevus, postinflammatory hyperpigmentations, melasma and nevus spilus. Due to the wide absorption spectrum of melanin (500-1100 nm), several laser systems are effective in removal of pigmented lesions. These lasers include the pigmented lesion pulsed dye laser (510 nm), the Q-switched ruby laser (694 nm), the Q-switched alexandrite laser (755 nm) and the Q-switched Nd:YAG laser (1064 nm), which can be frequency-doubled to produce visible green light with a wavelength of 532 nm. The results of laser therapy are usually successful. However, there are still many controversies regarding the use of lasers in treating certain pigmented lesions. Actually, the essential question in removing pigmented lesions with lasers is whether the lesion has atypical features or has a malignant potential. Dermoscopy, used as a routine first-level diagnostic technique, is helpful in most cases. If there is any doubt whether the lesion is benign, then a biopsy for histologic evaluation is obligatory.

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