Laser Treatment Didn't Make Nevi More Malignant

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BOSTON — Irradiation of benign pigmented nevi with Q-switched laser does not induce malignant transformation of the lesions, said Dr. David J. Goldberg at the annual meeting of the American Society for Laser Medicine and Surgery.

While the use of lasers to treat melanocytic nevi has been the subject of much debate because of concerns about malignant transformation, "to date there has been no study to fully evaluate this theoretical concern," said Dr. Goldberg of the department of dermatology at Mount Sinai School of Medicine, New York.

Toward this end, Dr. Goldberg and colleagues undertook a preliminary study to determine if irradiation with Q-switched laser increases the malignant potential of benign nevi. The investigators analyzed biopsy samples from 10 individuals with laser-treated nevi looking for changes suggestive of malignant transformation.

All participants had multiple benign nevi, one of which was laser irradiated with a Q-switched Nd:Yag laser. "In each patient, the treated nevus was matched with a paired control nevus that was not irradiated," said Dr. Goldberg, who is also in private practice in New York and New Jersey. Twenty-four hours after the laser treatment, both the treated and untreated nevi were excised and biopsy samples were analyzed for three instantaneous markers of malignant transformation: proliferating cell nuclear antigen, pyrimidine dimers, and 8-hydroxydeoxyguanosine. The specimens also were analyzed for p53.

"We didn't find any significant markers for malignant transformation in the laser-treated nevi," said Dr. Goldberg, suggesting not only that Q-switched laser irradiation is a safe option for biopsy-confirmed benign nevi, but also that "any future malignant transformation of such nevi is not the result of the laser treatments." ■