## Pulsed Dye Laser Risky for Infantile Hemangioma

## BY BRUCE JANCIN Denver Bureau

MAUI, HAWAII — A conservative and highly selective approach to pulsed dye laser therapy is appropriate for treating infantile hemangiomas, Dr. Ilona J. Frieden reported at the annual Hawaii Dermatology seminar sponsored by Skin Disease Education Foundation.

Pulsed dye laser (PDL) therapy of infantile hemangiomas has not been nearly as well established as it has for port-wine stains.

It has become clear that experience derived from PDL of port-wine stains in infants can't be generalized to infantile hemangiomas, she said.

Early enthusiasm in many quarters has faded.

"Infantile hemangiomas are much more complicated lesions than port-wine stains," cautioned Dr. Frieden, professor of clinical dermatology at the University of California, San Francisco.

Superficial-appearing infantile heman-



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DR. FRIEDEN

giomas can run much deeper than is evident upon physical examination.

The growth characteristics of hemangiomas of infancy are less predictable than those of port-wine stains, and the lesions feature a very fragile epidermal layer that's prone to ulceration.

"I think there's growing recognition that the risk of scarring due to laser therapy is definitely greater than with portwine stains," she continued.

Dr. Frieden was coauthor of a report detailing such complications in a dozen patients following PDL treatment of superficial infantile hemangiomas.

Eight of the children experienced severe ulceration with scarring and pain—and in one case, there was a life-threatening hemorrhage.

The other four had permanent atrophic scarring with no ulceration (Lasers Surg. Med. 2006;38:116-23).

Other downsides of PDL for infantile hemangiomas include its expense and the distinct possibility that the treatment will delay the use of more effective therapies, such as corticosteroids, she said.

The literature on PDL for infantile hemangiomas is best assessed with an especially critical eye, according to Dr. Frieden.

Uncontrolled case series by laser enthusiasts are the norm.

There has been only a single randomized controlled trial of PDL treatment of infantile hemangiomas.

In this 121-patient study, dermatologists at Birmingham (England) Children's Hospital found that the rate of cleared lesions or only minimal residual signs at age 1 year was 42% in the PDL group and 44% in observation-only controls.

Moreover, both skin atrophy and hypopigmentation were at least threefold more common in the PDL-treated children (Lancet 2002;360:521-7).

Consensus exists among pediatric dermatologists that a reasonable use of PDL in infantile hemangiomas is to mop up residual telangiectasias once a lesion has undergone involution.

Beyond this limited application, how-

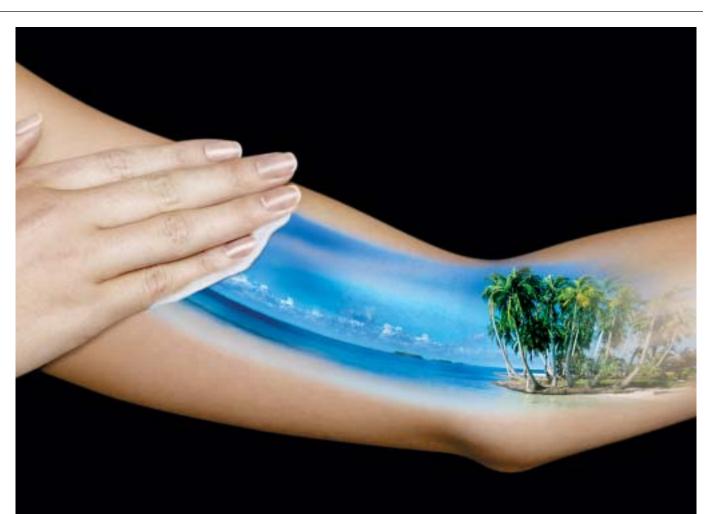
ever, the field is fraught with controversy. Dr. Frieden believes laser therapy isn't

appropriate for lesions in the early proliferative phase because of limited efficacy coupled with the potential for serious complications.

Furthermore, although PDL therapy for infantile hemangiomas that undergo ulceration has its advocates, Dr. Frieden considers it merely a third-line treatment, behind local wound care—the first-line therapy—and corticosteroids. There are no comparative studies involving PDL for ulceration in infantile hemangiomas, a serious complication that occurs in roughly 10% of the lesions, she noted.

Indeed, the use of laser therapy in clinical practice for vascular birthmarks of all types has far outstripped the supporting science, according to Dr. Frieden.

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