Pulsed Dye Laser Effective for Genital Warts in Men

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PARIS — The pulsed dye laser can selectively destroy anogenital warts in men without damaging surrounding skin, Ashraf Badawi, M.D., reported at the Fourth International Academy of Cosmetic Dermatology World Congress. A prospective, observational study found complete clearance of 528 anogenital warts (96%) treated by pulsed dye laser after one to three sessions. Clearance rates with imiquimod and conventional treatments, such as cryosurgery and cautery, range from 32% to 88%, he said.

Pulsed dye lasers have been used at 7.5 J/cm² to effectively treat perianal warts in children. But this is the first study, to the author’s knowledge, to evaluate the role of pulsed dye lasers in the treatment of genital warts in men.

The study also used higher fluences of 9-10 J/cm² to ensure greater destruction of the vascular component of the lesions, said Dr. Badawi of the National Laser Institute at Cairo (Egypt) University. Overlapping pulses were used to increase the photothermal effect of the laser radiation, leading to coagulation of the lesions and immediate graying of the warty tissue.

The selective characteristics of the pulsed dye laser allow it to induce less damage to surrounding tissues than other lasers. This leads to less inflammation and pain, he said.

The treatment is performed with topical anesthetic and does not require infiltration anesthesia as used in electrocautery or surgery. It is safe in comparison with the toxic effects of 20% podophyllin antimitotic solution or 0.5% podofilox solution.

The study included 174 men with 530 anogenital warts, uncomplicated by infection, who were referred to the National Laser Institute from January 2000 through December 2004.

Warts were present more often on multiple genital sites in 104 patients (59.78%), and on one genital site in 70 patients (40.22%). Among those patients, lesions were present on the penis in 39 (22.4%), on the scrotum in 11 (6.32%), on the urethral meatus in 4 (2.29%), and on the perianal area in 16 (9.2%).

The mean duration of the lesions was observed to be 4 months, and the average number of warts was 3.8.

Clearance was determined by independent clinicians, who performed examinations both with and without magnification. Follow-up was a minimum of 4 months and as much as 9 months in some cases.

Patients were treated with up to four pulses from a 585-nm flashlamp-pumped pulsed dye laser (Cynosure Inc., Chelmsford, Mass.), with a 450-µsecond pulse duration, and a spot size of 5-7 mm, depending on the size of the lesion.

Treatment was repeated every 2 weeks, with a maximum of three sessions over a 6-week period. A total of 528 (96%) warts were completely cleared after one to three sessions. Patients with fewer than three warts and with an area less than 20 mm² typically cleared after one session.

Three to four overlapping pulses showed better clearance of warts than single or even double pulsing, he said.

Patient age and morphologic type did not affect treatment outcome.

Side effects were infrequent, mostly in the form of mild pain at treatment and transient hypopigmentation after treatment.

Complete resolution and healing in skin without scarring or texture changes were found in most cases.

The recurrence rate at the same site was 5% within 4 months. This compares with a recurrence rate of 8%-22% with conventional treatments, he said.

Pulsed dye lasers could be used to treat anal warts in men and vulval warts in women. But they would not be appropriate for cervical warts, which require a carbon dioxide laser equipped with an appropriate delivery system, Dr. Badawi said.

Dr. Badawi has no financial interest in Cynosure.