Lichen Amyloidosis: In-Office Procedure Cuts Pain

BY BETSY BATES
Los Angeles Bureau

FLORENCE, ITALY — Recalcitrant lichen amyloidosis can be safely and effectively treated with dermabrasion in an office setting using tumescent anesthesia, William Y.M. Tang, M.D., said at the 13th Congress of the European Academy of Dermatology and Venereology.

Lichen amyloidosis is a rare, chronic condition characterized by profoundly pruritic yellow to reddish-brown hyperkeratotic papules symmetrically dispersed over the extremities and (sometimes) the trunk. Pathology reveals insoluble fibrillar protein, or amyloid. The condition is seen more frequently in males than females and is believed to be more common in people of Asian descent.

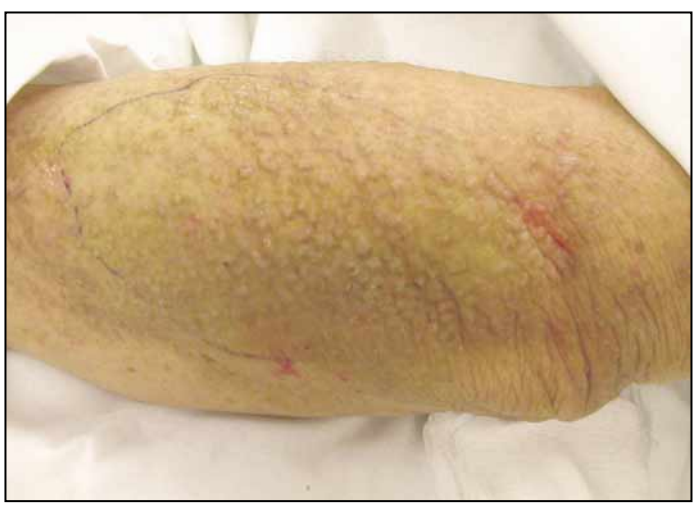
Management is difficult, said Dr. Tang, a Sai Ying Pung–based dermatologist with the social hygiene service in the government department of health in Hong Kong.

Dermabrasion has been described as an effective, long-lasting treatment modality, and Dr. Tang concurs. However, he said pain control is a substantial problem when dermabrasion is performed over the large areas of skin affected by lichen amyloidosis. General anesthesia is usually required.

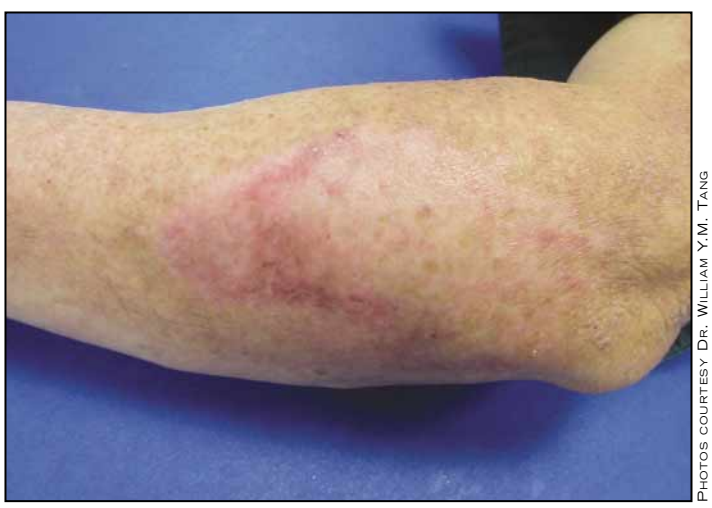
In an attempt to determine whether the procedure could be done in an office setting, Dr. Tang performed it on five male patients aged 43-73 years who had lichen amyloidosis for 3-20 years on their shins (four patients) and/or forearms (three patients). They were not responsive to potent topical steroids, emollients, or oral antihistamines. Dr. Tang infiltrated standard tumescent anesthesia solution into the subcutaneous compartment through a 22-gauge spinal cannula in a fan-shaped manner to his patients' most severely pruritic regions. Treated areas ranged from 72 cm^2 to 150 cm^2 and required 42-113 mL of tumescent solution.

After 30 minutes, he performed dermabrasion using an electric motor-driven dermabrader fitted with a stainless, olive-shaped head with spiral cutting edges rotating at 20,000 rpm. "The [dermabrader] head was moved with even, light pressure across the skin surface to remove the epidermis down to the papillary dermis," he said. A paraffin gauze dressing was applied and a mild analgesic prescribed. Dressings were changed daily for 2-3 weeks until reepithelialization occurred.

"Itch reduction was immediate in all patients," Dr. Tang said. Patients also experienced symptomatic relief for the duration of follow-up, which in some patients lasted 21 months. All patients rated their results as cosmetically improved. Although a few papules returned in two of five patients, they were less pruritic than in the initial cases. No procedure-related complications were reported. Adverse events included mild cellulitis and hypopigmentation; the latter improved with time. ■



Lichen amyloidosis is characterized by profoundly pruritic yellow to reddish-brown hyperkeratotic papules.



Dermabrasion using in-office tumescent anesthesia eased pain and resulted in immediate itch reduction.

PHOTOS COURTESY DR. WILLIAM Y.M. TANG

Experience and Evidence Exonerate Epinephrine in Finger, Hand Surgery

BY SHARON WORCESTER
Tallahassee Bureau

FAJARDO, P.R. — Epinephrine use in hand and finger surgery doesn't deserve its bad rap, Donald Lalonde, M.D., said at the annual meeting of the American Association for Hand Surgery.

Although epinephrine is commonly thought to be dangerous in the hands and fingers, that belief is based on limited data derived from cases several decades old, said Dr. Lalonde of St. John (N.B.) Regional Hospital. Newer evidence suggests epinephrine is not only safe but beneficial for hand and finger surgery, he added.

"There is a serious disconnect between the experience and the dogma," he said, noting that he has used epinephrine for almost every hand and finger operation in the last 5 years.

A paper published in Plastic Reconstructive Surgery in 2001 suggests the dogma is based on only 21 cases of epinephrine-associated finger infarction. Of 48 reported cases of digital death associated with local anesthesia, 27 occurred in patients who did not receive epinephrine. After reviewing all of these cases, Dr. Lalonde outlined several findings:

► More cases of finger infarction occurred without epinephrine than with it, so epinephrine couldn't have been the only factor involved in the poor outcomes.

► Almost all the cases took place before 1950, so something occurring prior to that time likely was involved in the poor outcomes.

► Until 1948, procaine was the only injected anesthetic available for use with epinephrine. Papers published in 1949 and 1950 in the Journal of the American Medical Association confirmed that there was a recall of toxic lots of procaine with acid pH as low as 1.0, which is extremely toxic, and that the shelf life of procaine was limited, especially in warm temperatures. Expiration dates weren't instituted for procaine, which is no longer used for injections in humans, until 1978.

► Lidocaine, which became available after 1948, replaced procaine as the anesthetic of choice because it was associated with less pain and longer duration. As a result, no further investigation was made of procaine toxicity relative to the finger infarction cases.

► Despite continued use of lidocaine in finger and hand surgery in various parts of the world, including Canada, no documented cases of finger infarction associated with lidocaine, when used with low-dose epinephrine, have been reported.

► There is now an antidote for epinephrine: phentolamine, which became available after the cases in question. No cases of epinephrine-induced digital loss have occurred in which phentolamine was used or considered. The availability of phentolamine further invalidates the meager evidence suggesting epinephrine is unsafe, he said.

Numerous papers on the successful use of epinephrine in hand and finger surgery have been published in recent years, he said.

Dr. Lalonde's own prospective study of more than 3,100 cases over 2 years revealed no incidents of finger infarction. The study, including cases from nine surgeons in six cities, is being revised for publication in the Journal of Hand Surgery, he said.

"With combined clinical experience of well over 100 surgeon-years of [epinephrine] injection in fingers, we have not killed one finger, and not one surgeon had to use phentolamine reversal," he said.

Conversely, he has encountered at least six potentially fatal complications from the use of general anesthesia for hand and finger surgery. Even if finger loss did occur, it would be better to lose a finger than a life, he noted. ■

PDT May Surpass Laser for Port Wine Stain Clearance

BY KATE JOHNSON
Montreal Bureau

MONT TREMBLANT, QUE. — Photodynamic therapy for port wine stains could improve the low success rates of traditional pulsed dye laser therapy, because it overcomes the barrier of thermal confinement, according to J. Stuart Nelson, M.D., who spoke at a symposium on cutaneous laser surgery sponsored by SkinCare Physicians of Chestnut Hill.

"The problem we have with current treatment is that port wine stains are made up of blood vessels of very different sizes—but based on the pulse duration and the wavelength of the laser treatment you choose, you only get thermal confinement of certain blood vessels," said Dr. Nelson of the Beckman Laser Institute at the University of California, Irvine.

"If you inject photosensitizers intravenously into the port wine stain's blood vessels and then you irradiate with the wavelength that is absorbed by the photosensitizer, you get destruction of the endothelial cells, wherever the photosensitizer is," he said in an interview.

His group has internal review board approval to use this approach under an experimental protocol that excludes children, facial lesions, and lesions larger than 2 cm.

"It boils down to us working out the appropriate drug and light dissymmetry parameters for human skin. We are currently using a benzoporphyrin derivative called verteporfin with great success. This is a drug used for macular degeneration, which is confined to the vascular compartment, where we want it, and has also had extensive clinical use—so there are no issues there," he said.

But Dr. Nelson stressed that the key to safety with this approach is real-time in situ vascular monitoring using a technique called optical Doppler flow tomography.

"What happens in PDT is that you get a slowing down of the blood flow as the endothelial cells are injured. And so what we wanted to be able to do is to monitor that change in blood flow. You can't just arbitrarily irradiate; otherwise, you are going to get into problems. The good thing about PDT is that is destroys all the blood vessels, but that is the dangerous thing about it too," he said. ■