Infectious Diseases

## Green Tea Ointment May Clear Genital Warts

BY MICHELE G. SULLIVAN

Mid-Atlantic Bureau

ST. LOUIS — An investigational ointment containing extract of green tea successfully clears genital warts in about 60% of patients, Karl Beutner, M.D., said at the annual meeting of the Society for Investigative Dermatology.

The ointment, polyphenon E, is being developed by MediGene AG, Martinsried, Germany. The active ingredient is 80% tea polyphenols.

The main catechin in the extract is

(–)-epigallocatechin gallate (EGCG), which has been shown to induce apoptosis in human carcinoma cell lines.

"It's a strong antioxidant that inhibits a number of different enzymes," said Dr. Beutner, chief medical officer at Dow Pharmaceutical Sciences, Petaluma, Calif., and associate clinical professor of dermatology at the University of California, San Francisco. "Unpublished reports indicate that it induces a pro–Th1 cytokine profile not dissimilar to that of imiquimod."

The three-armed, placebo-controlled trial randomized 502 patients to either an active ointment of 10% or 15% concentration, or the vehicle, which contains isopropyl myristate. Patients had an average of eight anogenital warts (2-30), which covered an average area of 95 mm<sup>2</sup>.

Patients applied the ointment three times a day for up to 16 weeks, or until clearance of all warts. Those who



The main catechin in the ointment derived from green tea extract, (–)-epigallocatechin gallate, has been shown to induce apoptosis in human carcinoma cell lines.

cleared completely were enrolled in a 12-week follow-up trial to assess recurrence rates.

"The primary end point was clearance of all warts—the baseline warts and any warts that developed during treatment," Dr. Beutner said. "This is an important distinction because other trials report the response in terms of only clearing the baseline warts. This was a stringent end point. They had to be clear of all warts," he said.

At the end 16 weeks of treatment, about 59% of patients in both active groups had complete clearance of their baseline warts, compared with about 34% of vehicle patients. Complete clearance of all warts occurred in 56% of the 10% group, 57% of the 15% group, and almost 34% of the vehicle group. Average time to response was 11 weeks.

About 80% of those in both active groups had more than 50% clearance. Less than 10% of those in either active group failed to respond. Women responded better

than men, with about 65% of women and 50% of men in both active groups achieving complete clearance.

During the 12-week follow-up period, 8.8% of those in the vehicle group experienced recurrence of baseline warts, compared with 6.5% of the group receiving the 15% formulation and 8.3% of the group receiving the 10% formulation. No new warts appeared in the vehicle group; however, new warts did appear in 8% of the group receiving the 10% formulation and in 3.7% of

the group receiving the 15% formulation.

About 87% of the active patients and 72% of the vehicle patients experienced at least one adverse event; events peaked at 2 weeks and then declined throughout the trial. Most were mild to moderate and included erythema, erosion, excoriation/flaking, edema, and induration. Only 1% of the patients discontinued use because of an adverse event. About 20% of the vehicle patients also experienced a mild to moderate local reaction.

The only serious adverse events related to the study drug were two cases of vulvovaginitis, which were judged to be application site reactions. Clinical trials for the ointment have been completed for the genital warts indication, Dr. Beutner said. MediGene AG also is conducting a phase II trial of the ointment for the treatment of actinic keratosis. Dr. Beutner is a consultant for the company.

## Only 10% of Teens Retested After Chlamydia Treatment

BY TIMOTHY F. KIRN
Sacramento Bureau

Los Angeles — Physicians mostly fail to follow up with adolescent patients they treat for a chlamydia infection, as recommendations state they should, according to a study conducted with the records from five Northern California pediatric clinics.

Only 10% of 122 patients testing positive for a *Chlamydia trachomatis* infection at the clinics received appropriate retesting, and many also did not appear to have been counseled about safer sex, did not notify their partners, or were not tested for other STDs, Loris Hwang, M.D., and her colleagues said in a poster presentation at the annual meeting of the Society for Adolescent Medicine.

Antibiotic resistance is not considered a problem with chlamydia, so treatment generally is successful and a follow-up visit is not necessary to test for cure. Rather, the reason for follow-up is because those who get infected tend to return to the same "sexual networks" where they got the infection in the first place, said Dr. Hwang of the University of California, San Francisco.

Because the study was conducted at clinics that were all part of the Kaiser Permanente system, an HMO where return visits would presumably be fairly easy for patients, "the situation is probably worse in other clinics," Dr. Hwang said in an interview.

Guidelines for chlamydia treatment from the Centers for Disease Control and Prevention recommend that patients have one follow-up visit for retesting at 3-4 months following a treatment visit, and then another within 12 months. Retesting at less than 3 weeks from treatment is specifically not recommended because nonculture tests can remain positive for that amount of time.

There were 122 individuals in the study, and 97% received appropriate antibiotics; of those, 22% were retested within 3 weeks of treatment. An additional 17% were retested after 3 weeks but before 3 months. And, 10% received retesting at some time after 3 months and before 12 months.

The remaining patients either had another visit but were not retested, were advised to return but did not, or had no records about a follow-up visit.

Regarding the other recommendations in the CDC guidelines, Dr. Hwang and her colleagues found that the physicians tended to do better with the female patients than the males.

Eighty-three percent of the study's 96 adolescent women were counseled on safer sex, compared with 62% of the study's 26 adolescent men. Thirty-eight percent of the women were screened for other sexually transmitted diseases, compared with 31% of the men. And, partners were notified or treated for 57% of the females, but only 31% of the men.

## High-Dose Valacyclovir Reduced Shedding of Oral Herpes Virus

NEW ORLEANS — Treatment with once-daily, high-dose valacyclovir significantly decreases the duration and quantity of oral herpes simplex virus-1 shedding associated with recurrent herpes labialis, according to data from a randomized study.

Oral shedding, either associated with known outbreaks of herpes labialis or,

perhaps more importantly, during asymptomatic periods, is the presumed mode of transmission of herpes simplex virus-1 (HSV-1), Stan C. Gilbert, M.D., said in a poster presentation at the annual meet-

ing of the American Academy of Dermatology.

HSV-1 causes gingivostomatitis in infants and children and recurrent cold sores in most people. It also has become the primary cause of genital herpes in the majority of cases among young adults. Recurrent herpes labialis (RHL) affects up to 40% of HSV-1–seropositive adults.

Research has shown oral shedding associated with episodes of RHL lasting from 1 to 8 days. But the studies are rare and have relied mostly on viral cultures, according to Dr. Gilbert, of the University of Washington, Seattle.

His study randomized 64 adults with a

history of three or more RHL episodes a year to four 500-mg valacyclovir (Valtrex) caplets taken at the first sign of an outbreak or placebo. The dosing was repeated 12 hours later. Polymerase chain reaction (PCR) swabs were collected every 12 hours starting at the first sign of outbreak and continuing for 10 days. Both groups had a history of cold sores for an average

New data on the natural history of oral shedding and the impact of antivirals may help reduce transmission rates.

DR. GILBERT

of 28 years and an average of four cold sores in the previous 12 months.

Patients receiving valacyclovir experienced fewer days of shedding than did the placebo group (1.8 vs. 4 days). A comparison of the

log HSV-1 DNA copies detected by PCR over time, using the average area under the curve (AUC), showed significantly less shedding from the valacyclovir-treated patients than from the placebo-treated patients (average AUC 1.1 vs. 2.2).

The study's findings are important because information about the natural history of oral HSV-1 shedding and the impact of antivirals may help to reduce transmission rates, Dr. Gilbert said. Dr. Gilbert is a member of the speakers' bureau for Glaxo-SmithKline Inc., which manufactures Valtrex and provided 50% of the funding for the study.

-Patrice Wendling