

“Beetle Juice” Wart Treatment Revived

An ancient medicine long used for wart removal gets a thorough re-examination in a 2001 article in the *Archives of Dermatology*. Researchers from New York University’s School of Medicine analyzed numerous studies on the uses and effects of cantharidin, a substance derived from the blister beetle that has been used medicinally for more than 2000 years in China. The article takes a comprehensive look at cantharidin’s origins, folk uses, current FDA status, dermatologic uses, and toxic effects.

In the 1950s, U.S. dermatologists used cantharidin to treat warts, but the substance lost its FDA approval in 1962 when new manufacturing regulations went into effect. Now, with a 1997 amendment to the Food, Drug, and Cosmetics Act, cantharidin has been nominated for the FDA’s Bulk Substances List, which allows physicians to administer the drugs compounded with cantharidin and other ingredients.

The studies reviewed by the researchers generally found that cantharidin has an excellent safety record when applied to the skin by a physician to treat common warts or the soft growths called molluscum. Side effects are extremely rare, and such treatments produce no scarring. Complications including inflammation of lymph vessels may be somewhat more likely when cantharidin is used to treat plantar warts on the feet, but this was noted only in a very small study of just two patients.

The blister beetle is also known as the Spanish fly, and its “beetle juice” has long been infamous (but actually ineffective) as a purported aphrodisiac. Interestingly, when taken orally, cantharidin is poisonous—and can even be fatal. Because of the risk of accidental ingestion by children, or of severe blistering if applied to the skin incorrectly, cantharidin should only be applied in a physician’s office. There have been no reports of cantharidin poisoning resulting from normal dermatological use, the study authors say.

How Was It Done

The researchers reviewed 49 studies and articles on the uses and effects of cantharidin, which is found in the body fluids of more than 1500 species of blister beetles. Two species are commonly found in the southern and southwestern United States.

Cantharidin kills warts by creating a blister on the growth, which causes it to detach from the surrounding skin. Cantharidin products are formulated with substances that create an oily, or colloidal film. First, the physician pares or “shaves” the wart, then applies the drug to the wart and a very narrow circle of surrounding skin. The area is sealed with nonporous tape, which is removed after four hours. Within 24 to 48 hours a blister will form, and healing is normally complete within four to seven days. Occasionally, resistant warts will require a second treatment.

Cantharidin is valuable for wart removal because no cases of scarring have ever been reported when it was properly applied by a physician. Scarring is possible with other well-known wart destruction methods, such as freezing (cryotherapy) or electrical burning (cautery).

Source: Moed L, Shwayder TA, Chang MW. Cantharidin revisited: a blistering defense of an ancient medicine. *Arch Dermatol* 2001 Oct;137(10): 1357-60