FPIN's Clinical Inquiries

Treatment for Anogenital Molluscum Contagiosum

MICHELLE R. BROWN, MD, and CHRISTOPHER P. PAULSON, md, FAAFP, Eglin Air Force Base
Family Medicine Residency, Eglin Air Force Base, Florida

SUSAN L. HENRY, mls, *E*ast Carolina University, Greenville, North Carol*ina*

Clinical Question

What is the best treatment for anogenital molluscum contagiosum?

Evidence-Based Answer

There is no evidence from comparative trials to suggest a single best treatment method for anogenital molluscum contagiosum. Randomized controlled trials suggest self-administered topical imiquimod or podophyllotoxin cream is effective for resolving lesions. (Strength of Recommendation: B, based on inconsistent or limited quality patient-oriented evidence). There are no comparative trials of other commonly used treatments, such as carbon dioxide laser, cryotherapy, or curettage.

Evidence Summary

Molluscum contagiosum virus mainly affects children, persons who are sexually active, and persons who are immunocompromised.1 It is a double-stranded DNA virus in the Poxviridae family and is usually a self-limited disease.2 Molluscum contagiosum virus is recognized as a sexually transmitted disease in adults and currently accounts for almost 1 percent of all diagnosed dermatologic conditions.3 Between 5 and 18 percent of persons with human immunodeficiency virus are coinfected with molluscum contagiosum virus.3 Without treatment, lesions may take six months to five years to disappear; therefore, some experts recommend treatment of anogenital lesions to reduce the risk of sexual transmission, prevent autoinoculation, and increase quality of life.4,5

Although numerous treatments for molluscum contagiosum virus exist, few have strong evidence to support their use. Most published studies are not placebo-controlled trials. Treatment can be physician- or patient-administered and may utilize mechanical, chemical, or immunologic mechanisms.4,6 Carbon dioxide laser, cryotherapy, and curettage are commonly used to remove molluscum contagiosum virus lesions; however, there is no evidence of their effectiveness for treatment of anogenital lesions.7

A randomized, double-blind, placebo-controlled trial of men (n = 100) evaluated imiquimod 1% cream self-applied three times daily for five consecutive days per week for four weeks (60 total applications).8 Ages of the participants ranged from nine to 27 years (mean of 16.3 years). Patients had an average of 7.3 lesions, ranging from 2 to 5 mm in diameter (mean of 3.4 mm).

The generalizability of the trial was limited by its exclusion of women and men older than 28 years. Ninety percent of lesions were located on the patients' genitalia or thighs. At one year, total resolution of lesions occurred in 82 percent of patients in the treatment group versus 16 percent in the placebo group ($P < .001$; number needed to treat [NNT] = 1.5). Mild, subjective adverse effects were reported in 18 percent of patients in the treatment group versus 6 percent in the placebo group (number needed to harm = 8.3). Imiquimod is typically not recommended for pregnant women (U.S. Food and Drug Administration pregnancy category C).

A randomized, double-blind, placebo-controlled, multicenter trial of men (n = 150) evaluated the use of self-administered topical podophyllotoxin 0.3% and 0.5% creams.9 Men 10 to 26 years of age with biopsy-proven molluscum contagiosum virus lesions on the face, arms, thighs, or anogenital region were evaluated after twice-daily application of podophyllotoxin 0.3% or 0.5% cream or placebo for three consecutive days. If lesions were persistent, the same treatment was continued for three more weeks. Complete resolution of lesions occurred in 15 percent of all patients following the initial application trial. At the end of four weeks, 92 percent of patients in the podophyllotoxin 0.5% cream group (NNT = 1.3), 52 percent in the podophyllotoxin 0.3% cream group (NNT = 2.8), and 16 percent in the placebo group had full resolution of lesions. Twice-daily use of podophyllotoxin 0.5% cream was more effective than twice-daily use of the 0.3% formulation ($P < .001$).9

Recommendations from Others

A comprehensive review of medical and professional associations revealed no official guidelines regarding treatment of anogenital molluscum contagiosum. A Cochrane review addressed treatment for general cutaneous molluscum contagiosum virus lesions; however, it specifically excluded anogenital molluscum contagiosum in the analysis.7 For generalized cutaneous molluscum contagiosum virus, there is insufficient evidence to support any single therapy, but expert opinion favors physical destruction of lesions. Authoritative textbook authors recommend various treatments for anogenital molluscum contagiosum (i.e., curettage, cryosurgery, antiviral or immunomodulatory medication, cantharidin, potassium hydroxide, oral cimetidine [Tagamet], laser therapy, and trichloroacetic acid), but do not endorse any single treatment regimen.5 Traditional therapies, such as carbon dioxide laser, cryotherapy, or curettage, should be considered in pregnant women.6

The opinions and assertions contained herein are the private views of the authors and not to be construed as official, or as reflecting the views of the United States Air Force Medical Service or the United States Air Force at large.

Address correspondence by e-mail to Michelle R. Brown, MD, at michelle.brown@columbus.af.mil. Reprints are not available from the authors.

Author disclosure: Nothing to disclose.

REFERENCES

1. Gottlieb SL, Myskowski PL. Molluscum contagiosum. Int J Dermatol. 1994;33(7):453-461.

2. Stulberg DL, Hutchinson AG. Molluscum contagiosum and warts. Am Fam Physician. 2003;67(6):1233-1240.

3. Crowe MA. Molluscum contagiosum. EMedicine Journal [database online]. Updated December 3, 2007. http://emedicine.medscape.com/article/910570-overview. Accessed August 10, 2009.

4. Tyring SK. Molluscum contagiosum: the importance of early diagnosis and treatment. Am J Obstet Gynecol. 2003;189(3 suppl):S12-S16.

5. Habif TP. Clinical Dermatology: A Color Guide to Diagnosis and Therapy. 4th ed. New York, NY: Mosby; 2004.

6. Ting PT, Dytoc MT. Therapy of external anogenital warts and molluscum contagiosum: a literature review. Dermatol Ther. 2004;17(1):68-101.

7. van der Wouden JC, Menke J, Gajadin S, et al. Interventions for cutaneous molluscum contagiosum. Cochrane Database Syst Rev. 2006;(2):CD004767.

8. Syed TA, Goswami J, Ahmadpour OA, Ahmad SA. Treatment of molluscum contagiosum in males with an analog of imiquimod 1% in cream: A placebo-controlled, double-blind study. J Dermatol. 1998;25(5):309-313.

9. Syed TA, Lundin S, Ahmad M. Topical 0.3% and 0.5% podophyllotoxin cream for self-treatment of molluscum contagiosum in males. A placebo-controlled, double-blind study. Dermatology. 1994;189(1):65-68.

Clinical Inquiries provides answers to questions submitted by practicing family physicians to the Family Physicians Inquiries Network (FPIN). Members of the network select questions based on their relevance to family medicine. Answers are drawn from an approved set of evidence-based resources and undergo peer review. The strength of recommendations and the level of evidence for individual studies are rated using criteria developed by the Evidence-Based Medicine Working Group (http://www.cebm.net/levels_of_evidence.asp).