



# Q/ What is the best treatment for plant-induced contact dermatitis?

## EVIDENCE-BASED ANSWER

**A** | IT'S UNCLEAR which treatment is best, because there have been no head-to-head comparisons of treatments for Rhus (plant-induced) contact dermatitis. That said, topical high-potency steroids slightly improve pruritus and the appearance of the rash (strength of recommenda-

tion [SOR]: **B**, small cohort studies).

Neither topical pimecrolimus (an immunomodulatory drug) nor jewelweed extract are helpful (SOR: **B**, 1 small randomized controlled trial [RCT]).

Oral steroids improve symptoms in severe cases (SOR: **C**, expert opinion).

## Evidence summary

Two prospective, self-controlled cohort studies (N=30) showed that high-potency topical steroids improved symptoms associated with artificially induced Rhus dermatitis in a group with a history of that type of dermatitis.<sup>1,2</sup>

The first study found that 0.05% clobetasol propionate ointment applied twice a day significantly reduced overall vesiculation, erythema, induration, and pruritus compared with the control ( $P < .05$ , .01, .01, and .05, respectively).<sup>1</sup> Investigators evaluated erythema, induration, and pruritus on a scale of 0 to 3 (absent, mild, moderate, or severe) and graded vesiculation on a similar 0- to 3-point scale (a frank bulla was graded 3). They started treatment at 12, 24, and 48 hours after exposure and followed patients for 14 days. The greatest difference in mean scores—a reduction in vesiculation scores of approximately 1 point—occurred between 2 and 7 days of therapy.

The second study compared improvement in symptoms of Rhus dermatitis with daily application of topical steroids of different potencies and a control ointment.<sup>2</sup> Investigators evaluated healing using a 0- to 4-point scale (0=clearing and 4=marked edema, erythema, and vesiculation). They found

that lower-potency topical steroids such as 1% hydrocortisone and 0.1% triamcinolone were equivalent to the control ointment, but high-potency (class IV) steroid ointments produced significant improvement in symptoms (by a mean of 1.07 points vs the control ointment; supporting statistics not given).

A systematic review of contact dermatitis treatment and prevention identified 4 “good-quality” RCTs that evaluated effective remedies for nickel-induced allergic contact dermatitis in a predominantly female Caucasian population.<sup>3</sup> All found that moderately high-potency topical steroid therapy improved symptoms, but heterogeneity among the studies made it impossible to determine the best agent.

## Topical immunomodulatory drugs and jewelweed are no help

In a double-blinded RCT of 12 adults with a history of Rhus dermatitis and a significant reaction to tincture of poison ivy, topical pimecrolimus didn't improve the duration or severity of symptoms ( $P$ =nonsignificant).<sup>4</sup>

A similar RCT from a dermatology clinic of 10 adults with confirmed sensitivity to poison oak or ivy found that topical jewelweed ex-

**Joshua Eaton, MD;**  
**Paul Crawford, MD**  
Nellis Family Medicine  
Residency, Nellis Air Force  
Base, Nev

**Rita Smith, MLS, MBA**  
Wilford Hall Ambulatory  
Surgical Center, Lackland  
Air Force Base, Tex

**ASSISTANT EDITOR**  
**Brian Crownover, MD**  
Nellis Family Medicine  
Residency, Nellis Air Force  
Base, Nev

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tract didn't improve symptoms of artificially induced Rhus dermatitis. Investigators didn't report *P* values.<sup>5</sup>

### Oral steroids haven't been studied

No studies have evaluated the effectiveness of oral steroids for Rhus dermatitis. Expert opinion recommends prednisone (60 mg daily, tapered over 14 days) for severe and widespread cases of poison ivy dermatitis.<sup>6,7</sup>

### Recommendations

The American Academy of Allergy, Asthma, and Immunology and the American College of Allergy, Asthma, and Immunology jointly recommend topical corticosteroids as first-

line treatment for localized allergic contact dermatitis. They advise giving systemic corticosteroids for lesions covering more than 20% of body surface area (for example, prednisone 0.5-1 mg/kg per day for 5-7 days, then 50% of the dose for another 5-7 days).<sup>6</sup>

The American Academy of Dermatology hasn't issued guidelines on plant-induced dermatitis.

A dermatology textbook states that topical steroids are effective during the early stages of an outbreak, when vesicles and blisters aren't yet present, and that systemic steroids are extremely effective for severe outbreaks. The authors recommend treating weepy lesions with tepid baths, wet to dry soaks, or calamine lotion to dry the lesions.<sup>7</sup> **JFP**

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