Q/ What is the most effective treatment for scabies?

Evidence-based answer

Although not as effective as topical permethrin, oral ivermectin is an effective treatment compared with placebo (SOR: B, a single small randomized trial).

Topical permethrin vs oral ivermectin

A 2014 systematic review of 5 studies included 2 new studies done after the 2007 Cochrane review. The new RCTs compared a single application of 5% topical permethrin with a single dose or 2 doses of oral ivermectin given 2 weeks apart. No statistically significant differences were found in these studies. Both underpowered studies favored topical permethrin, however.

The P value was .42 in one study of 242 adults and children, and this trial showed a clinical cure rate at 2 weeks of 93% us-
The CDC and the European Guideline for the Management of Scabies both recommend topical permethrin as first-line therapy for classical scabies. 

The other study of 120 adults and children didn’t report a P value or identify statistically significant differences between topical permethrin and oral ivermectin. This study reported a clinical cure rate of 87% with topical permethrin, 78% with a single dose of oral ivermectin, and 67% with 2 doses of oral ivermectin 2 weeks apart.

Ivermectin may control endemic scabies better than permethrin

A 2015 randomized controlled trial with 2051 patients compared mass treatments in a scabies-endemic population in Fiji. The trial had 3 arms: a standard-care group treated with 5% topical permethrin if symptoms were present and retreated at 2 weeks if symptoms persisted; a permethrin group in which all participants, whether infected or not, received 5% permethrin followed by a second dose at 7 to 14 days if symptoms persisted; and an oral ivermectin group in which participants were treated with 200 mcg/kg, repeated in 7 to 14 days for those with baseline scabies. At 12 months, the relative risk reductions were 94% (95% CI, 83%-100%) for the ivermectin group, 62% (95% CI, 49%-75%) for the permethrin group, and 49% (95% CI, 37%-60%) for the standard-care group. The study had multiple limitations, and all groups were permitted to receive standard care at any time during the 12-month follow-up period. Nevertheless, the findings suggest that endemic scabies control with ivermectin may be superior to topical permethrin.

Recommendations

The Centers for Disease Control and Prevention (CDC) and the European Guideline for the Management of Scabies both recommend topical permethrin as first-line therapy for classical scabies and note that oral ivermectin may be safe and effective but isn’t licensed for scabies treatment in most countries. Ivermectin isn’t approved by the United States Food and Drug Administration for treating scabies. The CDC recommendations note that the safety of ivermectin in children weighing less than 15 kg and pregnant women hasn’t been established.

References