BACKGROUND: The therapy of disseminated granuloma annulare has often limited success. Treatment of granuloma annulare with fumaric acid esters (FAE) has recently been reported to be effective in 2 patients. OBJECTIVES: To assess the efficacy of a systemic therapy with FAE in consecutive patients with disseminated granuloma annulare. METHODS: Eight patients with disseminated granuloma annulare were treated with FAE in tablet form according to the standard therapy regimen used in psoriasis. The colour and the elevation of the skin lesions were assessed by a visual analogue scale before and after therapy. RESULTS: Systemic therapy with FAE induced a significant clinical improvement in elevation and colour of skin lesions, with remission in 3 and partial remission in 4 patients. One patient remained unchanged. Side-effects associated with the therapy were seen in 6 patients. CONCLUSIONS: Systemic therapy with FAE can be effective in patients suffering from disseminated forms of granuloma annulare, but side-effects of FAE have to be taken into consideration.