

THE FUTURE OF THERAPY FOR RA

## Extract of thunder god vine root ameliorates inflammation in patients with RA

*Tripterygium wilfordii* Hook F (TwHF; also known as ‘thunder god vine’ or ‘lei gong teng’) (Figure 1) has long been used in China as a traditional treatment for autoimmune and inflammatory conditions. A standardized extract of the plant has now been tested in a double-blind, multicenter study of patients with active rheumatoid arthritis (RA), and was found to compare favorably with another daily oral RA drug—sulfasalazine.

The investigators randomly allocated 121 patients to receive either TwHF extract 180 mg per day ( $n=60$ ) or sulfasalazine 2 g per day ( $n=61$ ) for 24 weeks. Continued use of prednisolone (up to 7.5 mg per day) was permitted, but DMARDs had to be discontinued before the start of the study.

Of the patients who completed the study, 65.0% of those in the TwHF group met the American College of Rheumatology criteria for 20% improvement in RA symptoms, compared with 32.8% of those who received sulfasalazine.

TwHF treatment also produced rapid improvements in numbers of swollen and tender joints, markers of inflammation, and overall patient function. Of note, cholesterol levels increased significantly in patients who received TwHF, although it is not known whether this increase was related to an observed decrease in serum levels of interleukin-6 or some other mechanism.

The withdrawal rates in this study were relatively high, although significantly more patients in the TwHF group completed 24 weeks of treatment than in the sulfasalazine group (62% vs 41%,  $P=0.029$ ). The rate of adverse events was similar in both groups, with gastrointestinal events being the most frequently reported.

The mechanisms of the immunosuppressive and anti-

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**Figure 1** | Thunder god vine. Reproduced from *Nat. Chem. Biol.* **3**, 360–366 (2007).

inflammatory effects of TwHF, which are attributed to diterpenoid metabolites, remain to be elucidated. Nonetheless, the results of this small clinical study suggest that TwHF extract could hold promise as a treatment for RA.

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