HerbClip

FILE: •Devil's claw
(*Harpagophytum procumbens*)
•Back Pain, Low

Date: February 23, 1997 HC 022374

To: General Distribution

Re: Devil's Claw for Low Back Pain

Chrubasik, S., Ch. Zimpfer, U. Schütt, and R. Ziegler. 1996. Effectiveness of *Harpagophytum procumbens* in treatment of acute low back pain. *Phytomedicine*, Vol. 3(1), 1-10.

Extract of the root of devil's claw (*Harpagophytum procumbens*) has become a popular alternative for degenerative conditions of the musculoskeletal system following disappointment with, or intolerance of, conventional medical therapies. This study was designed to investigate the effectiveness of devil's claw as an analgesic. While evidence from animal studies has substantiated the analgesic and anti-inflammatory properties of the herb, no human studies have supported these findings. These properties are attributed to the principal active ingredient, the iridoid harpagoside. The effectiveness of the plant extract was explored in this four-week, randomized controlled study of back pain sufferers conducted at University Hospital in Heidelberg, Germany.

A total of 118 patients between 18 and 75 years of age with low back pain not attributable to identifiable causes were invited to participate. Criteria for eligibility included the following: a history of at least six months of low back pain, an acute increase of pain that affected both rest and movement, and the requirement of at least four weeks of symptomatic treatment. An appropriate sample size was selected to establish a confidence level of 95 percent.

The principal indicator of the analgesic power of devil's claw was established to be a reduced requirement for the analgesic Tramadol over the last three weeks of the study period. Daily phone contact with the patients allowed investigators to obtain a verbal 5-point rating scale of pain intensity (none, mild, moderate, severe, intractable). Secondarily, the Arhus low back pain index was modified and employed in an attempt to record the profiles of low back pain as appropriate to this study.

Patients in the treatment group received two 400-mg tablets of devil's claw extract three times a day (total 2400 mg), equivalent to 6000 mg crude root, calculated at a daily harpagoside level of 50 mg. Patients in the control group received a placebo. All participants completed a general health questionnaire, were examined, and subjected to a venous blood draw that was analyzed for the conventional biochemical and hematological indices of organ system function. Categorical data were examined in contingency tables and tested inferentially using a Chi square or Fisher's exact test. Paired analyses between baseline and end-of-study data were made.

A total of 109 patients completed the study—54 in the treatment group and 55 in the control group. Groups were matched on several measures including the Arhus back pain index. A majority of the subjects had been suffering with back problems for about 15 years. Acute attacks lasting longer than 3 months had caused most of them to seek treatment. Approximately 90% had suffered physical impairment for more than 14 days in the previous six months; with pain in one or more other sites a common symptom. Greater pain with physical activity was a prevailing problem for about two-thirds of the group. The average duration of treatment was eight years. Non-opioid analgesics had been tried by about three-fifths of the patients with varying degrees of relief; other types of medications including opioids, centrally acting muscle relaxants, and anti-depressants had also been used but to a lesser degree and with more limited relief overall.

The supplementary pain-killer Tramadol consumption did not significantly change, regardless of pain intensity; however, the number of pain-free patients increased from 0 to 9 in the treatment over the course of the study, compared to just one in the control group. An insignificant reduction in pain was confined almost entirely to a subgroup of patients whose pain did not radiate to one or both legs. There was a notable absence of identifiable clinical, hematological, or biochemical side effects.

While the primary outcome measure (reduction in Tramadol consumption) was not significantly changed, secondary measures (Arhus index) were impressive. The investigators suggest that, in light of the significant indications of safety and benefit, further trials with devil’s claw investigating pain reduction would be worthwhile. *—Anne Tarlton, PhD*