Short Report

**Artemisia herba-alba extract for treating Enterobius vermicularis infection**

Noori S. Al-Waili Private clinic, House 34, Street 42, Section 729, Al-Mashit, New Baghdad, Baghdad, Iraq

An extract of *Artemisia herba-alba* Asso (AHE) was found to have an apparently beneficial effect in the management of diabetes mellitus and elevated blood pressure by Al-Waili (1986, 1988). It did not cause harmful side effects even when used for long periods. A chance observation in a diabetic patient taking AHE suggested that this extract might have a possible therapeutic value in intestinal infection with *Enterobius vermicularis*. Therefore the possible effect of AHE on *E. vermicularis* infection was examined in 10 patients, 4 of whom also had diabetes mellitus.

Seven of the patients were males and 3 were females. 8 patients were adults, their ages ranging from 20-50 years. The other 2 were female children, 8 and 10 years old. They complained of anal itching, flatulence and abdominal discomfort, and had noticed active small worms in their stools. Stool examination showed ova of *E. vermicularis* in 2 patients and active worms in stool specimens from all of them. Generally, the patients had moderate to severe infections. 4 adult patients were given AHE as part of management for their diabetes (Al-Waili, 1986). After informed consent the adult patients were asked to drink 50 ml of AHE twice daily, while the children were given 25 ml twice daily. The dose was similar to that used in the treatment of diabetes and hypertension (Al-Waili, 1986, 1988). The method of preparation of AHE was as previously described (Al-Waili, 1986). Briefly, the plant was collected from the western desert of Iraq. About 500 g of this plant, containing stems and leaflets, were immersed in 5 litres of tap water and boiled for 15 min. The extract was sieved to remove stems and leaflets and stored in a refrigerator (4°C) to be used by the patients. The patients were instructed to stop taking any other medication and to attend the clinic daily for stool examination and the reporting of any side effects. Within 3 d of starting treatment, stool examination did not reveal any adult worms or ova. The patients became symptomless within one week and no side effect was reported. Follow-up showed that stool examinations were normal 4-6 months after treatment.

*A. herba-alba* is one species of a genus of aromatic plants of the family Compositae. It is the commonest species in Iraq, known in Arabic as *shik*. Bedouins use this plant to prepare curdled milk and camphor has been extracted from it. Besides Iraq, the plant is distributed in Egypt and south-west Asia (Chakravarty, 1976). The water soluble extract of this species was reported recently to have a role in reducing elevated blood pressure and blood glucose levels (Al-Waili, 1986, 1988) and it also has anti-arrhythmic and anxiolytic actions (unpublished observations). The present results appear to show that AHE eradicated intestinal infection with *E. vermicularis* within 3 d in all 10 patients treated. The mode of the action of killing this parasite is not clear. Another species of *Artemisia*, *A. annua*, has been used widely in Chinese traditional medicine as a treatment for fever and malaria. Quinghaosu (QHS, artemisinin) has been isolated from leafy portions of this plant and used successfully in the treatment of malaria, schistosomiasis and *Clonorchis sinensis* infection. It has a virostatic effect on influenza virus and an adjuvant effect on cell-mediated immunity (see review by Klayman, 1985). Further studies on the effects of AHE on other parasitic diseases are in progress in my clinic.

References


Received 14 January 1988; accepted for publication 19 February 1988.