

Aloe Vera & Diabetes

Two placebo-controlled studies were conducted at the Medical Plant Information Centre, faculty of Pharmacy, Mahidol University in Bangkok investigated the application of Aloe vera juice derived from the preserved gel in the treatment of patients suffering from diabetes mellitus.

In the first study(1), 72 patients (aged 35-60 years) with a high fasting blood sugar level and a typical diabetic glucose tolerance test result were assigned to a treatment or placebo group, and were matched according to age, sex and weight. The patients in the treatment group received one tablespoon of Aloe vera juice (80%) twice a day for 42 days. The Aloe vera juice was prepared at the Faculty of Pharmacy at Mahidol University in Thailand from Aloe vera gel with the addition of flavourings and preservatives.

Fasting blood glucose levels were measured weekly and triglyceride and cholesterol levels every two weeks. The results showed that the average (mean) blood glucose level of the patients in the Aloe juice group was significantly reduced from the second week of the study and continued to fall throughout the treatment period, whereas there were no changes reported in the placebo group. Furthermore, in the treatment group, blood glucose levels fell from an average of 250.36 (+/- 7.65mg%) to 141.92 (+/-4.12mg%) by day 42. Triglyceride levels also fell significantly in the Aloe group after two weeks from 220.31 (+/- 11.40mg%) on day 1 to 122.72 (+/- 5.46mg%) by day 42. Once again, no significant changes were observed in the placebo group. No changes in cholesterol were observed in either group.

In another study, the researchers monitored 72 patients (aged between 35-70 years) with diabetes mellitus who had been unsuccessfully treated with glibenclamide. 23 of the patients were women and the remaining 49 were men.

The patients were assigned to either the placebo or treatment group, and were matched according to sex, age and weight. The patients in the treatment group received one tablespoon of Aloe vera juice twice a day, plus glibenclamide (5mg) twice a day for 42 days. The placebo juice was reported to have the same colour, taste and smell as the Aloe juice with the same dosage of glibenclamide.

The results after two weeks showed that the mean fasting blood glucose level of the patients in the Aloe juice and glibenclamide group was significantly reduced and this continued to fall as the study progressed. Mean blood glucose levels fell in the treatment group from 288.14 (+/- 8.45mg%) on day 1 to 148.03 (+/- 4.61mg%) by day 42. Triglyceride levels also fell significantly in the Aloe and glibenclamide group after 4 weeks.

(1) Yongchaiyudha S, Rungpitarangsi V, Bunyapraphatsara N, et al. Antidiabetic activity of Aloe vera juice. I Clinical trial in new cases of diabetes mellitus. *Phytomedicine* 1996; 3,3:241-243.

(2) Bunyapraphatsara N, Yongchaiyudha S, Rungpitarangsi V et al. Antidiabetic activity of Aloe vera juice. II Clinical trial in diabetes mellitus patients in combination with glibenclamide. *Phytomedicine* 1996; 3,3:245-248.