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EFFECTIVENESS OF SHORT TERM ADMINISTRATION OF *CHANDRAPRABHA VATI* ON LIVER FUNCTION AND GLYCAEMIC CONTROL IN PATIENTS WITH DIABETES MELLITUS TYPE 2

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Management of diabetic patients demands a multiple therapeutic approach and alternative treatment procedures are being actively investigated. Occurrence of liver disease and raised liver enzymes, indicating hepatic injury are common in diabetic patients. Although *Ayurveda* medicine plays an important role in treatment of diabetes there is a belief that it may cause hepatic injury. *Ayurveda* medicine is popular amongst Sri Lankans. *Chandraprabha vati* is a herbomineral formulation consisting in 24 herbal and 7 mineral ingredients. This preliminary study was conducted, to evaluate the effect of short term administration of *C. vati* in newly diagnosed type 2 diabetic patients and to determine its effect on liver function since very few studies have addressed this issue in Sri Lanka.

Sixty newly diagnosed diabetic patients between the ages 35 and 65 years (with a male: female ratio of 1:1), and 30 apparently healthy subjects, were recruited after obtaining written informed consent. *Chandraprabha vati (CV)* 2 pills (500 mg) mane at 10 am and 4 pm were administered continuously for 14 days for the test group and 120 ml of DM-13 decoction was administered similarly for the positive control group. A group of non diabetic subjects formed a normal control group. The oral glucose tolerance and liver function tests were done before and after the study. Five mililitres of blood were collected and allowed to clot for 30 minutes and centrifuged at 3500 rpm for ten minutes to obtain serum. Assays were done on the same day using reagent kits.

The positive control and test groups showed no significant difference in the serum concentration of the hepatic enzymes Aspartate aminotransferase (AST), Alanine amino transferase (ALT), Gamma glutamyltransferase (GGT) and Alkaline phosphatase (AlkP) before the treatment in comparison with the normal control group. After 14 days of treatment also there were no significant differences in the serum AST, ALT, GGT and AlkP among the 3 groups. Oral glucose tolerance test (OGGT) performed before the commencement of treatment revealed that the test group and positive test group exhibited abnormal glucose tolerance as opposed to the normal control group. After 14 days of treatment patients treated with DM 13 showed significant improvement in glucose tolerance than those treated with CV and the normal control group maintained the normal response to OGGT. There were no significant differences in any of the serum parameters analysed between males and females.

It could be concluded that 14 days of treatment with CV, does not induce hepatic damage and does not improve glycaemic control. This investigation will form the basis for further studies to determine the effect of long term administration of *C. vati* on hepatic and renal functions.