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Toxicological studies of prolonged treatment with aqueous extract of Salacia reticulata var. b-Diandra in normal and diabetic rats

The aqueous extract of the root bark of Salacia reticulata var. β-Diandra (family-Celestraceae) has been used as an anti-diabetic treatment from ancient times and its oral hypoglycaemic activity has been scientifically established in various animal models. An evaluation of safely should be a prime consideration before any hypoglycaemic agent is recommended for hurnan consumption. Therefore toxicological investigations were conducted in normal and diabetic rats.

Group of male Sprague Dawley rats (n=6) were given distilled water (10ml/kg body wt) and another group (n=6) was given an aqueous extract of S. reticulata 25g/kg body wt) once daily for 45 days. At the end of the experiment, the animals were sacrificed and blood was collected for the estimation of haematological parameters and liver function tests (alanine transaminase. Aspirate transaminase and alkaline phosphatase). Transverse sections of all vital organs. Liver, pancreas, heart, intestine, kidney were prepared for histopathological evaluation.

In second experiment the procedure was repeated with diabetic rats treated with S. reticulata (n=60)or distilled water (n=6). Normal rats treated with distilled water (n=6) was used as a second control. The experiment was continued for four months.

No statistically significant differences in haematological parameters ($P>0.05$), liver functions tests ($P>0.05$) and no evidence of histopathological lesions were observed in the two groups of normal rats. No abnormalities in the external appearance, behavior,

food and water intake and the body weight gain were observed in all animals during the experiment regardless of the treatment.

Haematological, toxicological and histological findings of the diabetic rats treated with *s. reticulata* also revealed comparable results with diabetic untreated and normal untreated rats. These findings strongly suggest that the aqueous extract of *S. reticulata* is free of any acute or chronic toxic effects.