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## The tribal drug Salacia in the management of diabetic, kidney disease

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Different varieties of herbal plant Salacia (from Celastraceae family) are available. The important species of Salacia are *oblonga*, *chinesis*, *rosburgai*, *reticulata*, etc. Out of that *Salacia oblonga* is quite effective. This plant has been used by tribal population for treating no. of medical ailments. The root of the plant was initially used to tide over the hunger at the time of famine since it produces temporary anorexia. After taking small bit of root, the person did not feel hunger for one to two days. Subsequently few reports have suggested that it lowers the blood sugar level in diabetics, thus helps in controlling blood sugar and diabetes and also preventing long term complication of diabetes. No. of studies have revealed that it also reduces LDL, VLDL, total cholesterol and TG and increases HDL cholesterol causing beneficial effects in lipid metabolism. Various components like anthocyanidins, catechins, phenolic acids, quinines, friedelin-oleanane triterpene quinone-methides and related triterpenoids (celastroloids), mangiferin, gutta-percha, and dulcitol have been isolated from plants of the Salacia species. The animal studies with highest single dose-2000 mg/kg of body weight in rat was given and no untoward effects was noticed in neurobehavioral toxicity, histamine levels, hemopoietic function, LFT and renal function. In the clinical study with one year follow up 102 patients were included in the study out of which only 90 completed the follow up. They were divided in two groups' age, sex, matched. Both the groups received antihypertensive specially calcium channel blocker, centrally acting antihypertensive drugs and vitamin supplements. One group was given the trial drug (*Salacia oblonga*) as add-on therapy for one year and followed at monthly interval. The salient findings are as follows. Male pre-dominated 78-80% in both the groups, common symptoms at presentation was weakness, anorexia, vomiting and edema. There was no significant symptomatic deterioration in DN patients who received Salacia, no adverse effect or allergic reaction was noticed in patients suggesting that the Salacia is safe. Majority of patients at presentation were hypertensive and baseline blood pressure in group 1 and 2 were comparable respectively. Strict blood pressure control was achieved in both the groups. There was stable kidney function as measured by serum creatinine and blood urea in patients who received, Salacia as compared to DN patients who did not receive the trial drug, suggesting that the drug may retard the progression of patients of diabetic nephropathy. The Salacia group also showed anti-proteinuric effect and had significant impact on fasting blood glucose level in diabetic nephropathy but there was no effect on post-prandial glucose level. It had no significant effect on cholesterol, HDL, LDL and TG. Drug decreased the level of Homocysteine significantly in DN patients. C-reactive protein and endothelin levels also decreased significantly in the trial group. TNF- $\alpha$  did not decrease in diabetic nephropathy patients who received herbal compound. In conclusion, it seems that Salacia a tribal drug seems to have promising role in the management of diabetic kidney disease.

### Biography

R.G. Singh after doing his MD in Medicine and DM in Nephrology in 1982 from prestigious central university of Asia i.e. Banaras Hindu University joined as faculty at the institute of medical science where he has served as a Assist Prof., Asso Prof., Prof., Dean of faculty and Director of institute and finally he is serving as a lifelong Distinguished Prof. of nephrology at BHU and also Prof & Head of Nephrology in one of the upcoming institute of medical science, HIMS. Prof. Singh has published more than 350 papers in national and international journals, more than 3 dozen orations and has been conferred one dozen fellowships of different scientific bodies and organisations. He has conducted one and half dozen research projects and guided more than 3 dozen postgraduate students in medicine and nephrology. For last 20 years he has been involved in Tribal and Herbal medicine research.

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