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## Evaluation of Nephroprotective Potential of *Holarrhena Antidysenterica* leaves in Experimental Diabetic Nephropathy in Rats

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**H**olarrhena antidysenterica L. (Apocynaceae) is a traditionally important Indian medicinal plant useful in different ailments such as amoebic dysentery, diarrhea, asthma and diabetes. The nephroprotective potential of the plant is however not scientifically evaluated. We have undertaken the present study with the aim to find out nephroprotective potential of ethyl acetate fraction of *Holarrhena antidysenterica* leaves (EAHA) in streptozotocin (STZ)-induced early diabetic nephropathy in experimental rats. Experimental diabetic nephropathy was induced in Wistar rats using single intraperitoneal injection of streptozotocin (65 mg/kg). Animals were divided in six groups (n=6) and treated with 100 mg/kg, 200 mg/kg & 400 mg/kg EAHA for 4 weeks. At the end of study period, fasting blood glucose, lipid profile, serum albumin, serum total protein, serum creatinine, blood urea nitrogen (BUN), glycosylated hemoglobin, and biomarkers of kidney oxidative stress were assessed. Urine was analyzed for the measurement of total protein, albumin, and creatinine clearance. Kidney sections were subjected to histopathological study. Daily oral administration of different doses of EAHA for 28 days normalized various biochemical, metabolic, and histopathological changes in the diabetic rats. EAHA significantly ( $p < 0.01$  and  $p < 0.05$ ) improved the glycemic status and renal function in diabetic rats as compared with diabetic control rats. Present study has revealed that EAHA prevented the progression of diabetic nephropathy in STZ-diabetic rats by improving the glucose homeostasis and by amelioration of oxidative stress in kidney.

### Biography:

Dr. Deepti Bandawane, M.Pharm., Ph.D. Working as HOD & Professor, Dept. of Pharmacology at P.E.S. Modern College of Pharmacy, India. Receiver of 'Women Researcher Award' an International Scientist Award by VDGGOOD Professional Association, India during International Conference at Coimbatore on 4th & 5th July 2020.