

Influence of ayurvedic antidiabetic agent on the pharmacodynamics of glimepiride

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The present study is planned to explore the influence of ayurvedic antidiabetic drug Madhumehari on the pharmacodynamics of glimepiride. Wistar albino rats of either sex were induced diabetes with alloxan and were used. The study was done in two phases, acute phase and chronic phase. In acute phase the diabetic rats were divided into six groups each consisting of 6. The diabetic control (Group-I) was treated with 0.5%W/V CMC suspension orally. To the diabetic group II, III and IV glimepiride 1mg/kg body wt, madhumehari 50mg/kg body wt. and madhumehari 100mg/kg body wt. were administered orally respectively. Groups V and VI were given orally the combination of glimepiride 1mg/kg body wt + madhumehari 50mg/kg body wt and glimepiride 1mg/kg body wt + madhumehari 100mg/kg body wt. In chronic study the protocol was similar to that of acute study but treatment was given for 7 days. Blood samples were collected from retro orbital plexus at predetermined time intervals for blood glucose level (BGL) estimation after the first and last oral dosing of glimepiride for acute and chronic study respectively. The combination of glimepiride + madhumehari has shown antidiabetic activity at 3rd hour. Glimepiride when administered along with madhumehari 50 & 100mg orally the fall in BGL was found to be more significant when compared with the per se treatment of glimepiride, madhumehari 50 & 100mg in both acute and chronic studies. From the above study it may be concluded that there is additive type of Pharmacodynamic interaction is possible between glimepiride and madhumehari.

Biography

N. Anitha has completed her Ph.D. in Pharmaceutical Sciences from Jawaharlal Nehru Technological University Hyderabad In April 2010, Masters of Pharmacy from Punjabi University, Punjab and Bachelor of Pharmacy from The Tamilnadu Dr.M.G.R Medical University. She worked as Lecturer in Adhiparasakthi College of Pharmacy and presently working as Associate Professor in Sultan-ul-Uloom College of Pharmacy, Hyderabad.

Her research interest includes Drug-Drug interaction and Phytochemical identification, isolation and screening of Pharmacological activities of various natural products. She has published several papers in International and National Journals and presented many papers in various conferences. At present she is guiding many U.G. and P.G. students in the field of Pharmacy. She is a life member of APTI and IPS.

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