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Momodica charantia improves hyperglycemia and left ventricular histology of streptozotocininduced diabetic Wistar rats

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The present study examined the effects of *Momordica charantia* on symptoms of diabetes, hyperglycemia and histology of the heart of streptozotocin-induced diabetic rats. Forty healthy adult Wistar rats of both sexes, were randomly assigned into five groups A, B, C, D and E of eight rats each. Group A were the control (normal rats); B were the experimentally-induced diabetic rats; C were diabetic rats treated with methanolic extracts of *M. charantia* for two weeks (withdrawal group); D were diabetic rats treated with methanolic extracts of *M. charantia* for four weeks. E was diabetic rats treated glimepiride for four weeks. Physical changes, body weight and fasting blood glucose were monitored through the experimental period. Results showed a non significant difference (p>0.05) in the average body weight of C group when compared with the diabetic group. Groups D and E showed significant increase (p<0.05) in the mean body weights when compared with the rats in groups A, B and C. Blood glucose of C increased significantly after two weeks of extract withdrawal, while D and E rats maintained normoglycemic levels. Histological studies revealed that *M. charantia* and glimperide restored the disorganized myofibrils of the left ventricle observed in diabetic rats.

Biography

O A Komolafe has received her PhD in Anatomy at Obafemi Awolowo University, Ile -Ife Osun State, Nigeria in May 2012. Currently, she is a senior lecturer, working as a postdoctoral scholar in the Discipline of Clinical Anatomy, Laboratory of Medicine & Medical Sciences, College of Health Sciences, Nelson Mandela School of Medicine, University of Kwazulu-Natal, Durban, South Africa. She has successfully completed her Administrative responsibilities as Departmental coordinator for Year 3 Medical & Dental students 2011-2014 and Chairman, Departmental welfare committee. Her research has included Diabetes mellitus, Cardiovascular, Electron microscopy, Histology & Histochemistry, Immunohistochemistry and Pre-eclampsia. Based on this research and fellowship training, she has received several awards and honors, such as: Carnegie New York for female academic staff 2011, TET funding Awards 2012 and Postdoctoral scholarship 2013. She has authored a reasonable number of research articles in reputable international journals to her credit. She is a member of Placental Research Group South Africa, Anatomical Society of Nigeria, Diabetes Research OAU.

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