

Assessment of Some Herbal Products Used for Health Care

Mohammed Mosihuzzaman

*Bangladesh Institute of Health Sciences (BIHS), 125, Darussalam, Mirpur, Dhaka-1212,
Bangladesh and Asian Network of Research on Antidiabetic Plants (ANRAP), Bangladesh
Email: mmosihuzzaman@yahoo.com*

Herbal products are widely used for healthcare in most developing countries, where modern medicine is either inaccessible or unaffordable. Due to adverse side effects of many of the synthetic drugs, use of herbal medicine in the developed world is also increasing rapidly. As the herbal medicines are usually prepared without any proper scientific basis and their evaluation, in the modern scientific sense, is practically non-existent, there remain serious concerns about the safety and claimed efficacy of the herbal preparations used in the third world. Scientific assessment of some Ayurvedic and Unani preparations in India and TCM in China have been made but there is hardly anything done in this respect in other parts of Asia, South America and Africa. For scientific assessment of herbal products we have published a Technical Report in *Pure and Applied Chemistry* with IUPAC support. On the basis of the protocols we have developed practical methodologies for evaluating some of the herbal preparations used in Bangladesh. We have started with those herbal medicines which are used for the treatment of diabetes. Safety and efficacy assessments are being done by feeding tests on healthy and type 2 diabetic model rats generated in our laboratories. Blood glucose (ELISA), serum insulin (rat insulin kit) and lipid profiles (GC) are measured at defined intervals after acute and/or chronic feeding of the herbal drugs. Toxic metals (if any) in the herbal drugs are analyzed by AAS. TLC and HPLC profiles of the herbal drugs under study are being made. NMR fingerprints of reported active/marker compounds are also being recorded. Standardized procedure for extraction of herbal drugs and constituent individual plant materials are being optimized. Identification of active plant(s), active agents and marker compounds are in progress. Some of the results obtained from 12 antidiabetic herbal medicine sold in Bangladesh will be presented.