Scientific Description of Traditionally Used Anti-diabetic Plants from Cholistan Desert

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ABSTRACT

Medicinal plants are widely used against diabetes throughout the world and as well as in Pakistan. But, few of them have validated for scientific criteria, great diversity of animal models are being introduced to better understand the pathogenesis and new drug effects of diabetes. Diabetes mellitus is rapidly growing at an alarming rate. The attention is focussed to work on previously unexplored medicinal plants (such as *Boerhavia procumbens*, *Corchorus depressus*, and *Farsetia hamiltonii)* extracts from Choilstan Desert of region Bahawalpur in a standard scientific and systematic way. These medicinal plants are being traditionally used to cure devastating diabetes mellitus. The crude extracts would be subjected to a screening study to detect potential anti-diabetic activity.

Our experimental strategy involves collection of medicinal plants from the Cholistan Desert of Bahawalpur in different season. Consequently, chemical fingerprinting (bioassay-guided extraction, fractionation, purification and structural characterization of lead compounds through modern spectroscopic techniques) and biological fingerprinting (DNA-target analysis, HSA binding, or liposome-binding chromatography) have been under taken. Finally, studies also include toxicological profiling; followed by pre-clinical trials to cure diabetes in alloxan/streptozotocin induced diabetic rats.