

Influence of environmental factors on the effectiveness of an antidiabetic plant: *Laportea ovalifolia* (Schumach. and Thonn.) Chew. (Urticaceae)

Tsabang Nole^{1,2}, Yedjou Clement G² and Tchounwou Paul B³

¹University of Yaounde1, Cameroon

²University of Dschang, Cameroon

Objective/Purpose: The environmental factors have influence on the effectiveness of medicinal plants. Plants collected without taking in consideration these influences may be insignificant active or not active. Furthermore active plants harvested habitats may not active when they are collected out of these habitats. These hazardous medicinal plants' harvesting is responsible of the traditional healer's failed treatments. The failure in the treatments happened when traditional healers change their native region, where they usually collect plants. The purpose of this study is to verify the influence of changing of the habitat of a plant in the traditional healers' treatments of diabetes. However, this evaluation of traditional healers' diabetic patients' treatments according to habitats of plant used has not been previously studied.

Material & Methods: An ethnopharmacological survey was carried out at traditional healers who treat diabetes

with *Laportea ovalifolia*. In previous studies we have controlled 30 patients using drugs prepared with material brought from Fongo-Tongo (native habitat) and in the second we controlled 30 patients treated with material collected in Mount Nkala (residential habitat). Patients used their glucometers during the control.

Results: The variety harvested is a perennial male plant. The mean level of blood glucose in diabetic patients of group 1 who took the plant harvested from Fongo-Tongo (West region) became normal between 1 to 10 days. The mean level of blood glucose in those of group 2 who took the plant harvested in *Indian Journal of Natural Products and Resources, International Journal of Biological and Chemical Sciences, Journal of Medicinal Plants and Research and African Journal of Biotechnology* out Nkala (Centre region) failed town between 3 to 15 days.

Conclusion: The differences between the values of blood glucose concentrations in the two cases were not significant. Recommendations are made for chemists to determine the chemical composition of the samples of *Laportea ovalifolia* that would help to explain the variation of the active compounds responsible of the failure of blood glucose level.

tsabang2001@yahoo.fr
tsabang@hotmail.com