

## Global Experts Meeting on INFECTIOUS DISEASES, DIABETES AND ENDOCRINOLOGY February 27-28, 2019 Tokyo, Japan

### Evaluation of *Bidens pilosa* as treatment for diabetes in Zambia

**Davies K Chisenga**  
Kasama General Hospital, Zambia

**Introduction:** Diabetes is a chronic metabolic disease that occurs when the human body is not able to produce enough of the hormone insulin or because cells do not respond to the insulin that is produced by the alpha and beta cells of the islets of Langerhans of the pancreas, as a result there is high glucose level above 3.5 to 6.5 mmol/l in the body because these cells regulate the entry of glucose into and out side of the cells for energy production. There are two major types of diabetes, Type-1 Diabetes, in which there is malfunctioning pancreas and can't regulate blood sugar. Type-2 Diabetes happens when pancreas stops producing enough insulin and secondly, when the body stops absorbing and using insulin correctly. Inflammation has been implicated as a possible origin of numerous local and systemic diseases, such as cancer, cardiovascular disorders, diabetes mellitus and celiac disease. This study explored the use of *Bidens pilosa* extract as the cure for both type-1 and 2 after 60 days of administration.

**Aims & Methodology:** To evaluate the efficacy of *Bidens pilosa* leaf extract in diabetic and hypertensive clients. To determine the blood sugar level in the study population. The Randomized Stratified (block) experimental design was used in this research and the sample size was 64 subjects were tested prior to a treatment for high blood sugar. The same subjects are tested again after treatment with a blood-sugar lowering medication. By comparing the same patient's results before and after treatment, each patient is effectively used as their own control.

**Results:** *Bidens pilosa* extract has been used during the study on 64 clients in Zambia, whose blood sugar levels ranged from 10 mmol/L to 35 mmol/L. After administration for 60 days the mean blood sugar levels in sample population was 6.2 mmol/L. with  $\text{std}\pm 2.3$  while the chi-square asymptomatic significance at 0.927 at start and after drug administration 0.128. The point probability was 0.022. The exact significance at start was 0.949 while after drug administration was 0.134. The T-test paired correlation was 0.236 while the significance was 0.098, CI=0.95. Therefore, the null hypothesis is accepted that *Bidens pilosa* extract can cure by 98% of type-1, type-2 diabetes and hypertension than the conventional medicine.

**Conclusion:** *Bidens pilosa* extract can cure by 98% of type-1, type-2 diabetes and hypertension than the conventional medicine It exhibited good efficacy and showed antibacterial properties to Gram negative bacteria found in the gastrointestinal tract.

K\_chisenga@hotmail.com