In Vitro and *In Vivo* Cutaneous Wound Healing Activity of Hydroethanolic Extract from Leaves of *Aloe buettneri* (Liliaceae)

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Aloe buettneri is used in Togolese traditional medicine to treat several skin diseases including wounds which is a public health problem. This study aimed to assess the healing activity of hydroalcoholic extract from Aloe *buettnerion* skin wounds.Tissue damage model is used for *in vitro* activityusing bronchial epithelial cell16HBE grown. Also, Excision wound model in balb/c mice was evaluated. The results showed extract of A. *buettneri*increases the tissue repair of bronchial epithelial cell 16HBE grown in their respective culture medium with 0.3% SVF. Then eighteen hours after induising lesion, the percentage of healing in 16HBE cells in the medium supplemented with 50 µg/ml extract is almost 100% whereas in the control, it is approximately 65%. Carbopol gel containing 2,5% extract stimulates skin woundhealing in mice. Wound healing is assessed by the reduction of the wound surface area. The difference between the healed areas observed in controls and treated mice is significant ($P < 0,05$). These results prove the use of Aloe *buettneri* among traditional recipes for treating wounds in the pharmacopoeia but further studies remain important to produce traditionally improved drugs.

Keywords: Wound-healing, Cell proliferation,16HBE cells, balb/c mice

Biography:

Metowogo Kossi is currently working as Lecture and Researcher at University of Lome, Faculte des Sciences Laboratoire de Physiologie- Pharmacologie. He has completed his Ph.D. in Physiology, Pharmacology from Universite de Lome, Togo. His main area of interest focuses on Physiology and Pharmacology. His area of expertise includes Natural Substance, Pharmacology, Toxicology, Gastric Ulcers, Asthma, Wound Healing and Phytochemical Screening. He has 7 publications in journals as author/co-author.