

## Evaluation of Antiacne effect *In Vitro* of Hydroalcoholic Extract of *Aloe buettneri*, *Mitracarpusscaber* and *Hannoaundulata* used in Togolese cosmetopoeia

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Microorganisms have been recognized as a main target for medical treatment of acne because induced acne by several physiopathological mechanisms. Antibiotics are often prescribed in acne treatment. These antibiotics have sides effects and in recent year Antibiotic resistant acne-developing microorganism strains has been increasing. The use of plant in the treatment of many pathogenic microorganism is promising. *Aloe buettneri*, *Mitracarpusscaber*, *Hannoaundulata* were three plants resources used in Togolese cosmetopoeae and traditional medicine by treating dermatosis. This study aimed to assess *in vitro* antimicrobial activities of these three selected plants resources on acne-developing microorganism and other organisms isolated from acne lesions. The microbial germs used consisted of six reference strains: *Propionibacterium acnes* ATCC 6919, *Staphylococcus aureus* ATCC 29213,

*Escherichia coli* ATCC 25922, *Pseudomonas aeruginosa* ATCC 27853, *Klebsiella pneumoniae* ATCC 700603 and *Candida albicans* ATCC 35659. The results showed microorganisms strains tested except *Candida albicans* and *E. Coli* were susceptible to plant resources extract at 250mg/ml by the agar well diffusion method with inhibition diameters ranging from  $12 \pm 2$  to  $18 \pm 1$  mm. The MICs values were in the range of 15,625 to 62,5mg/ml by macrodilution method and MCB between 31, 25- 125 mg/ml. The three plant resources are potential natural and effective alternative for treating *in vitro* acne and overcoming the emerging antibiotic resistance.

**Keywords:** Acne, Antimicrobial activity, *Cutibacterium acne*, *Aloe buettneri*, *Mitracarpusscaber*, *Hannoaundulata*

### Biography:

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