

### Biological Activities of *Piptadeniastrum Africanum* (Hook.f) Brenan leaf

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*Piptadeniastrum africanum* (Leguminosae) a tree of about 50m or more in height has leaflets which are alternate and bipinnately compound (1). In folklore medicine, the bark is used in the treatment of dysmenorrhoea, bronchitis, headache, cough, male impotence, stomachache, hemorrhoid, as a purgative and as a worm expeller. The aim of this study is to carryout phytochemical and fluorescence analysis, as well as to investigate the antimicrobial and antihelmintic activities of the leaf of *P. africanum*. The antimicrobial activities were determined using the agar plate diffusion technique was adopted by using Gram positive (*Staphylococcus aureus*, *Bacillus subtilis*), Gram negative (*Escherichia coli*, *Pseudomonas aeruginosa*, *Klebsiella pneumonia*) and fungi (*Aspergillus niger*, *Candida albicans* and *Rhizopus stolonifer*) organisms.

The phytochemical, fluorescence, antimicrobial and anti-helmintic activities of *P. africanum* were carried out using standard procedures. (2,3,4,)

The phytochemical analysis showed the presence of tannins, steroids, alkaloids, cyanogenetic glycosides, saponins and cardiac glycosides. Against the test animal, (*Eudrilus euginae*) the hexane and ethyl acetate fractions caused paralytic effects and actual death. The anti-helmintic activities exhibited at all the test doses of the hexane and ethyl acetate fractions were similar and more pronounced than the activity of the reference drug albendazole.

The tested extract and fractions against the gram positive, gram negative bacteria and fungi, the ethyl acetate fraction at 0.5µg/ml, 2.5µg/ml and 5µg/ml exhibited antibacterial effect against *Pseudomonas aeruginosa*. This study therefore reveals the anti-helmintic activities of *Piptadeniastrum africanum* leaf.

Table 1: Phytochemical Screening of *P. africanum* leaf

Saponin	Tannins	Anthraquinone	Alkaloids	Cyanogenetic glycosides	Cardiac glycosides	Flavonoids	Sterols
+	+	-	+	++	+	+	+

++ = Highly present; + = present; - = Absent

Table 2: Paralytic effect of the methanol extract, Ethyl acetate and Hexane fractions of *P. africanum* leaf

Dose	Methanol extract	Ethyl acetate fraction	Hexane fraction(min)
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(mg/ml)	(min)	(min)	
100	44.92	10.18	18.03
50	49.24	14.36	14.90
25	55.28	9.10	15.39

Control : Albendazole 10 mg/ml = 5.31Reference

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