African Journal of Pharmacology and Therapeutics Vol. 2 No. 3 Pages 88-93, 2013
Open Access to full text available at http://www.uonbi.ac.ke/journals/kesobap/

Supporting Information

Anti-inflammatory and analgesic effects of *Lonchocarpus cyanescens* root in mice

Uwemedimo F. Umoh [a,*] and Paul A. Nwafor [b]

[a] *Department of Pharmacognosy and Natural Medicine, Faculty of Pharmacy, University of Uyo, Nigeria*
[b] *Department of Pharmacology and Toxicology, Faculty of Pharmacy, University of Uyo, Nigeria*

* **Corresponding author:** Department of Pharmacognosy and Natural Medicine, Faculty of Pharmacy, University of Uyo, P.M.B. 1017 Uyo, Nigeria; **Tel**: +234-806-6129612; **Email**: ufumoh@yahoo.com

Table 1: Phytochemical constituents of ethanol extract of *L. cyanescens root*

Metabolite	Test	Observation	Inference
Tannins	Ferric chloride	green ppt	++
Phlobatanins	5% KOH	colourless solution	++
Alkaloids	Dragendorff reagent	brick red ppt	++
Saponin	Frothing	froth lasted 10minutes	++
Cardiac glycosides	Salkowski	no red colour at interphase	+
	Keller kiliani	brown ring at interphase	++
Terpenes	Lieberman	dark green colour at interphase	+
Anthraquinones	Bontrager	no reddish colour	-
Flavonoid	Magnesium metal	crimson red colour	++

Key: *+ = present in trace*
++ = present in abundance
- = absent

 ISSN 2303-9841

Table 3: Anti-inflammatory effect of fractions on *L. cyanescens* root on carrageenan-induced oedema in mice

Doses (mg / kg)	Mean diameter (cm) ±SEM at time intervals (min)				
	30	60	120	240	300
Control	0.13 ± 0.01	0.12 ± 0.01	0.11 ± 0.01	0.10 ± 0.01	0.10 ± 0.01
N-hexane	0.13 ± 0.01 (0.00)	0.12 ± 0.01 (0.85)	0.08 ± 0.01 (28.83)	0.07 ± 0.01 (22.92)	0.06 ± 0.01 (20.99)
Chloroform 60	0.11 ± 0.01 (20.30)	0.10 ± 0.01 (15.38)	0.07 ± 0.01[c] (38.74)	0.04 ± 0.01[b] (62.50)	0.03 ± 0.01[b] (66.67)
Ethylacetate 60	0.09 ± 0.01 (33.08)	0.06 ± 0.01[b] (46.15)	0.04 ± 0.01[a] (67.57)	0.02 ± 0.01[a] (82.29)	0.01 ± 0.01 (86.42)
Butanol 60	0.08 ± 0.01 (39.85)	0.07 ± 0.01[c] (39.32)	0.04 ± 0.01[a] (68.47)	0.02 ± 0.01[a] (82.29)	0.01 ± 0.01[a] (96.30)
Aqueous 60	0.11 ± 0.01 (15.79)	0.08 ± 0.01[a] (29.91)	0.07 ± 0.01 (36.04)	0.04 ± 0.01[b] (54.17)	0.03 ± 0.01[b] (69.14)
ASA 100	0.04 ± 0.01 (62.41)	0.04 ± 0.01[a] (70.09)	0.04 ± 0.01[a] (68.47)	0.02 ± 0.01[a] (81.25)	0.01 ± 0.01[a] (98.77)

Significance Relative to Control, [a]p< 0.001, [b]p< 0.01, [c]p< 0.05,
ASA = Acetyl Salicylic Acid.
The numbers in parenthesis represent the percentage inhibition of oedema
(n = 6).

Table 6: The effect of fractions of *L. cyanescens* on formalin-induced paw licking in mice

Dose (mg / kg)	Number of paw lickings at time intervals (mins.)				
	5	15	20	25	30
Control	17.00 ± 0.78	1.83 ± 0.55	2.00 ± 0.78	3.33 ± 0.84	2.17 ± 0.72
N-hexane 60	15.83 ± 0.44 (6.88)	1.67 ± 0.77 (8.74)	1.67 ± 0.61 (16.5)	1.00 ± 0.33[c] (69.96)	0.67 ± 0.33 (69.12)
Chloroform 60	9.00 ± 1.78[a] (47.06)	0.83 ± 0.37 (54.64)	0.67 ± 0.30 (66.50)	0.67 ± 0.30[b] (79.88)	0.17 ± 0.15[c] (92.17)
Ethylacetate 60	7.5 ± 1.47[a] (55.88)	0.50 ± 0.45 (72.68)	0.67 ± 0.30 (66.50)	0.67 ± 0.30[b] (79.88)	0.33 ± 0.19[b] (84.79)
Butanol 60	9.0 ± 0.70[a] (47.06)	0.00 ± 0.00 (100)	0.30 ± 0.19 (85)	0.30 ± 0.19[a] (91)	0.00 ± 0.00[b] (100)
Aqueous 60	16.83 ± 1.07 (10)	1.17 ± 0.50 (36.07)	1.33 ± 0.30 (33.5)	1.33 ± 0.61[c] (60)	1.50 ± 0.31 (30.88)

Significance Relative to Control, [a]p< 0.001, [b]p< 0.01, [c]p< 0.05,
ASA = Acetyl Salicylic Acid.
The numbers in parenthesis represent the percentage inhibition of oedema
n = 6

Table 9: The effect of fractions of *L. cyanescens* root on acetic acid-induced writhing in mice

Dose (mg / kg)	Number of writhings at time intervals (min)					
	5	**10**	**15**	**20**	**25**	**30**
Control	0.83 ± 0.60	13.33 ± 3.26	13.0 ± 3.82	9.17 ± 1.99	5.17 ± 0.78	4.50 ± 0.91
N-hexane 60	0.50 ± 0.20 (39.76)	8.83 ± 0.50 (33.76)	10.0 ± 0.97 (23.08)	7.67 ± 1.15 (16.36)	4.83 ± 0.15 (6.58)	3.33 ± 0.45 (26.0)
Chloroform60	0.17 ± 0.15 (79.52)	2.33 ± 0.51[a] (82.25)	4.00 ± 0.71[b] (96.23)	6.17 ± 0.55 (32.72)	5.00 ± 0.23 (3.30)	3.67 ± 0.87 (18.44)
Ethylacetate60	0.33 ± 0.30 (60.24)	5.00 ± 1.47[b] (62.49)	3.17 ± 1.04[b] (75.62)	2.17 ± 0.68[a] (76.34)	1.17 ± 0.60[a] (77.37)	0.83 ± 0.28[a] (81.56)
Butanol 60	0.33 ± 0.19 (60.24)	2.33 ± 0.77[a] (82.52)	2.50 ± 0.87[b] (80.77)	1.17 ± 0.50[a] (76.34)	1.50 ± 0. 39[a] (70.99)	0.83 ± 0.28[a] (81.56)
Aqueous 60	0.33 ± 0.19 (60.24)	3.33 ± 0.56[a] (75)	6.67 ± 1.12 (48.69)	6.00 ± 0.14 (34.57)	3.40 ± 0.77 (32.30)	1.3 3 ± 0.19[b] (70.40)
ASA100	0.00 ± 0.00[c] (100)	0.00 ± 0.00[a] (100)	1.00 ± 0.47[a] (92.31)	1.17 ± 0.28[a] (87.24)	0.33 ± 0.19[a] (93.62)	0.33 ± 0.19[a] (92.67)

Significance Relative to control [a]p< 0.001 , [b]p< 0.01, [c]p< 0.05
ASA = Acetyl Salicylic Acid
The numbers in parenthesis represent the percentage inhibition of oedema
n = 6

 ISSN 2303-9841