CV NO 28

PROCEEDINGS

of the

41st CONGRESS

of

NIGERIAN VETERINARY MEDICAL ASSOCIATION

Venue:
National Veterinary Research Institute, Vom

Date:
22nd - 26th November, 2004

TABLE OF CONTENTS

LIST OF LOCAL ORGANIZING COMMITTEE

1.	Dr. A.A Makinde	Chairman
2.	Dr. N.J. Zwandor	1st Vice Chairman
3.	Dr. S. Akpa	2nd Vice Chairman
4.	Dr. D. Shamaki	Secretary
5.	Dr. S.N. Leo	Asst. Secretary
6.	Dr. F.O. Fasina	Asst. Secretary
7.	Chairmen & Secretaries of all Committees of the Anniversary	Members
8.	All members of NVRI Publ. & Info. Tech Members	

BOOK OF PROCEEDINGS SUB-COMMITTEE

1.	Dr. J.O. Kalejaiye	Chairman
2.	Dr. I.A. Muraina	Secretary
3.	Dr. P.A. Okewole	Member
4.	Dr. M.O. Odugbo	Member
5.	Prof. G.A.T. Ogundipe	Member
6.	Dr. T.A. Cole	Chairman (Scientific & Publication C'ttee)
7.	Dr. (Mrs) M.J. Muhammad	(Secretary Scientific & Publication)

N.V.M.A. NATIONAL EXECUTIVE COMMITTEES

1.	Dr. Haroun Yusuf	President
2.	Dr. D.N. Onah	1st Vice President
3.	Prof. G.A.T. Ogundipe	2nd Vice President
4.	Dr. M.D. Saidu	3rd Vice President
5.	Dr. Tunji Nasir	Secretary General
6.	Dr. Bola Remi Adewumi	Asst. Sec. Gen.
7.	Dr. Obori Ganiyu	Publicity Secretary
8.	Dr. Sesan Olatunde	Treasurer
9.	Dr. Hamidu Audu Yelwa	Financial Secretary
10.	Dr. S.V.O. Shoyinka	Editor-in-Chief
11.	Dr.M.C.O. Ezeibe	Dep. Edit.-in-Chief
12.	Dr. (Mrs) L.H. Lombin	1st Ex-Officio Member
13.	Dr. J. Maina	2nd Ex-Officio Member

N.V.M.A. PLATEAU STATE EXCO's

1.	Dr. N.J. Zwandor	Chairman
2.	Dr. (Mrs) D. Bitrus	Vice Chairman
3.	Dr. Y.J. Usman	Secretary General
4.	Dr. (Mrs) L. Taama	Asst. Secretary General
5.	Dr. S.J. Shaibu	Publicity Secretary
6.	Dr. J. Okoye	Financial Secretary
7.	Dr. I.A.A. Durbi	Treasurer
8.	Dr. J. Ibu	1st Ex-Officio Member
9.	Dr. T. Cole	2nd Ex-Officio Member

Conrad, H.R. and Hibbs, J.W. (1968). Nitrogen utilization by the ruminant. Appreciation of its nutritive value. J. Dairy Sci., 51; 276-284.

Duncan, D.D. (1998). Multiple range and Multiple F-tests. Biometrics, 11:1-42.

Greenhalgh, J.F.D. (1980). Use of straw and cellulosic wastes and methods of improving their value. By-products and Wastes in Animal Feeding. Occasional Publ. No. 3 Brits. Soc. of Ani. Prod. Pp. 25-31.

Pathak, B.S., Jain. A.K. and Singh, A. (1986). Characteristics of crop residues. Agric. Waste, 16: 27-35.

Rogers, J.A., Davis, C.L. and Clark, J.H. (1982). Alteration of rumen fermentation, milk fat synthesis, and nutrient utilization with mineral salts in diary cows. J. Dairy Sci., 65:577 (Abstr).

SAS (1988). Statistical Analysis Systems Inst., Usersâ Guide version 6 edn., Cary North Carolina, USA pp. 283-773.

Solvay, S.A. (1983). Sodium bicarbonate in animal nutrition. Rue du prince Albert, 33,1050 Brussels Belgium. Pp. 1-4.

EFFECT OF CALOTROPIS PROCERA ON RATS EXPERIMENTALLY INFECTED WITH *TRYPANOSOMA CONGOLENSE*

***Shamaki, B.U., Obaloto O.B[1], Bashir A.Y. [2], Musa U.B.[2], Abubakar A[2], Iliyasu B[2] , Yanan E.G [1] and Onyekwelu, N.A.**

Vet. & Livestock Studies Division
[1] Biochemistry & Chemotherapy Division NITR.
[2] Parasitology Section
Nigerian. Institute for Trypanosomiasis. Research Vom.
*Corresponding author: shamabala@yaho.com.

INTRODUCTION:

Trypanosomiasis is a fatal zoonotic disease cause by trypanosomes of several pathologic species, which are transmitted either cyclically by Tsetse flies (Glossinal specie) or mechanically by biting, flies e.g. stomoxy, tabarnids (1).

The disease can equally be transferred by coitus from infected male or female animals e.g. *Trypanosoma* equiperdium. The disease causes serious economic loss by reducing farming activity due to infestation of lands (2). Control of this disease in Africa relies on vector control, chemotherapy and chemo prophylaxis while the most effective vector control of sterile male technique and air spray using chemicals have been abandoned, due to cost and cumulative toxicity of chemicals spray on both plants and animals, the parasites are developing resistance due to various surface glycoprotein (VSG) to available drugs which can equally be expensive and toxic and in other cases not potent due to over-use (5). Our inward search for anti*Trypanosoma*l drugs is based on claims in use of calotropis procera to treat fever, hepatomegally, splenomegally that are all signs of Trypanosomiasis and report of anti*Trypanosoma*l property of the aqueous root extract of this plant invitro (4).

MATERIALS AND METHODS:

Following claims of anti*Trypanosoma*l property of calopropis procera root extract, fresh roots was collected from Kaltungo in Gombe State and allowed to dry at room temperature. This dried root was pounded to powder, and 200g of this powder was soaked in 1 litre of distilled water for 24 hours. The compound was filtered first using muslin cloth and the filtrate was filtered again using 50.0cm whartman filter paper. The filtrate was then freeze-dried. Phytochemistry, toxicity, PH and therapeutic value of the plant not extract was investigated using 39 rats, 13 rats was used for toxicity according to (2) and 30 rats for therapeutic investigation. Acute toxicity studies using 10 rats divided into 3 groups of 3 rats/cage with one control for initial investigation and 3 groups of 1 rat/cage with one control for second phase was done. While, 4 groups of 5 rats/cage were used for therapeutic studies, 2 groups of 3 rats were used for control. Reconstituted root extract of the plant was administered according to rat weights.

RESULTS:

Phytochemical screening reveals the presence of saponinis, reducing sugars and cardiac glycosides, the PH of the filtrate was 6.09, up to 500mg/kg body

weight was orally administered to 196g rat with no mortality. Out of the 20 rats infected with *T. congolense* and treated with various doses of the extract, those that received 200mg/kg body weight survived longer at termination of the work; one rat survived with blood stream *T. congolense* infection completely eradicated after 4 days of consecutive oral treatment with 200mg/kg of the reconstituted extract.

DISCUSSION:

The research for anti*Trypanosoma*l drugs using ethno veterinary products has been on for quiet sometime with little or no success. Although calotropis procera is said to be toxic, this preliminary investigation reveals tolerance by rats at 500mg/kg body weight. The only signs of toxicity were transient mouth scratching due to irritation of the extract, after oral administration. 200mg/kg body weight of the extract cleared parasitaemia after 4 days of oral treatment in a rat. A detailed research work is currently going on at Nigerian Institute for Trypanosomiasis research (NITR) to investigate the possibility of exploring its use as anti*Trypanosoma*l drugs.

ACKNOWLEDGEMENT:

We appreciate the efforts of our supportive staff who relentlessly help us in this work, and the management staff of NITR Vom for encouraging the work.

REFERENCES

Alello, S.E and Mays A. (1998). "Trypanosomiasis" In: Merck Veterinary Manual, 8th edition. Whitehouse Station, N.J. Merck and Co. pp.33-35.

Lorke, D (1983): A new approach to practical toxicity testing. Arch. toxicol. 54:275-287

Onyiah, J.A. (1997): African Animal Trypanosomiasis. An overview of status in Nigeria. Tropical veterinary 15:111-116.

Obaloto O.B., Shamaki B.U., Bashir A.Y., Usman B.M, Igwe A.C., Abubakar A, Iliyasu B., and Onyekwelu N.A. (2004): Invitro studies of ante*Trypanosoma*l property of C. procera. (In press)

Shamaki, B.U., Iliyasu B., Abubakar A., Onyekwelu N.A., Omotanise. S.O. Ojiegbu, F.N.C., Bot D.Y. and Ajagbonna V.N., (2003): Effects of Aqueous stem-bark extract of cussonia barteri on experimental *Trypanosoma congolense* infection in rats: preliminary studies. JSTR vol. 3 (In press).

Table 1 Dose Administered And Survival Period Of Rats

Cage	Average wt (g)	Dose (mg/kg)	Average Amt (g)	Average vol. (nd)	Post treatment survival period (Days)
1.	175	25	4.5	0.09	49
2.	173	50	8.2	0.11	42
3.	201	75	13.9	0.31	49
4.	169	180	29.8	0.38	51
5.	179	200	43.6	0.39	>68
6.	180	Infected	Untreated	Control	19
7.	178	Uninfected	Untreated	Control	>68

AMT Amount
WT Weight
Vol. Volume