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E. AFRICA

C.O.
10144
4 MAR. 25

FROM
ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH.

DATE
17th February 1925.

FOR CIRCULATION :—
Mr. [illegible]
Mr. Bottomley
Mr. Green
Asst. U.S. of S.

Perm^t U.S. of S.
Parl^y U.S. of S.
Secretary of State.

SLEEPING SICKNESS. USE OF TRYPARSAMIDE.

Encloses pamphlet on - issued by Institute, and states as to success which has attended Dr Chesterman's use of drug. Dr Chesterman will visit Uganda, Kenya and T.T. during forthcoming summer and will discuss with M.O's.

Previous Paper
P 16725/24 Gen. E.A.

14 MAR 1925

MINUTES

I think copies of this letter might be sent to Govs of Kenya Uganda and T.T. for info ref on 16725

The reply might be signed by you with an explanation that you have succeeded Sir H Read as Chairman of the CAMS Cttee: ~~[illegible]~~ I have dfted for consdn.

[illegible]
5.3.25

I don't think it is part of the duties of the Chairman of the CAMS Cttee to correspond with ~~those~~ all & sundry on this or similar subjects. [illegible] I will ask [illegible] the [illegible]

AF.
6/3/25

[illegible]

Subsequent Paper

[illegible] (224313) Wt. 17813/36 Gp. 149 20000 12.24 W & S Ltd.

? Ack [illegible] official letter, & refer to [illegible]

THE ROCKEFELLER INSTITUTE
FOR MEDICAL RESEARCH
66TH STREET AND AVENUE A
NEW YORK

C.O.
10144
4 MAR 25

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February 17, 1925.

Dear Sir Herbert:-

You may recall that among the physicians in Africa using Tryparsamide for the treatment of sleeping sickness, Dr. Clement C. Chesterman, who is stationed at Yakusu, near Stanleyville, Belgian Congo, was among the first to carry out an extensive trial of the drug in this condition. Dr. Chesterman has published two papers describing his results, which are extremely successful. He is continuing to use Tryparsamide and in a recent letter to me states that ~~in his opinion~~ he is "convinced that Tryparsamide is the best drug for sleeping sickness so far produced".

Dr. Chesterman expects to spend two or three months of the coming summer in Uganda, Kenya, and Tanganyika. We have written him that we hope it will be possible for him to discuss Tryparsamide with the various medical officers he meets on his journey as it seems to us to be an unusually favorable opportunity for a number of informal conferences on this subject. I am writing to acquaint you with what we have asked Dr. Chesterman to do and I hope that you will have no objection to the plans that we have made.

With kindest regards, I am

Sincerely yours,

Louise Pearce

Louise Pearce, M.D.

Sir Herbert Read,
Colonial Office,
Whitehall,
London, England.

Enclosure (1)

Reprinted from SCIENCE, January 23, 1925, Vol. LXI, No. 1569, pages 90-92

TRYPARSAMIDE TREATMENT OF AFRICAN SLEEPING SICKNESS[1]

The problem of sleeping sickness in tropical Africa is a source of great concern. The disease is becoming more common in many regions long known to be affected and is spreading to regions previously supposed to be free. There are two ways known of combating the disease: The destruction of breeding places of the tsetse-fly which is the intermediate host [illegible] the trypanosome parasite which incites the disease, and the cure of persons already suffering from it. The former undertaking is formidable in a tropical country only sparsely settled and, as yet, very little brought under control of Europeans with knowledge of sanitary measures and power to put them into force. At best, a long period of years must elapse before effective beginnings in that direction can be [illegible].

The actual cure of the disease by means of drugs is something within present possibility. It may be conjectured that by this means the number of infections may be reduced through diminution of sources from which the tsetse-flies become contaminated. [illegible] speaks circumspectly upon this point since it remains unknown whether wild animals serve as reservoirs for the trypanosoma gambiense [illegible].

Laboratory experiments covering the years 1914 to [illegible] led to the production at the Rockefeller Institute for Medical Research of tryparsamide (the sodium salt of N-phenylglycineamide-p-arsonic acid) by Jacobs and Heidelberger (1) and to the determination of its biological action by Brown and Pearce (2). The promising curative results obtained in various species of animals infected with pathogenic trypanosomes, by Brown and Pearce, led to the application of the drug to the treatment of human trypanosomiasis or sleeping sickness in the Belgian Congo in 1920. The cooperation [illegible] Belgian [illegible] officers has made it possible to keep under observation, for upwards of three years, many of the patients treated by us during our visit. In this way we have gained a knowledge of and insight into the [illegible] and duration of action of tryparsamide [illegible] it would have been very difficult [illegible].

[illegible]

and of fluid aspirated from lymph glands, and next, the degree of curative action on cases in the advanced or cerebrospinal stages of the disease. The first effect is more easily achieved than is the latter. Atoxyl, tartar emetic, Bayer 205 and other less well-known drugs have been proven to possess trypanocidal action and thus are of more or less value in the early or acute phases of the disease; no drug, unless it be tryparsamide, has shown a marked therapeutic action in the late stages of the affection.

The results of the first clinical investigations with tryparsamide by Pearce (3), based upon the treatment of 77 patients in Léopoldville, Belgian Congo, demonstrated that tryparsamide caused (1) a prompt disappearance of trypanosomes from the blood and lymph glands, (2) a rapid improvement of the abnormal cerebrospinal fluids of advanced patients which in the majority of cases amounted to a restoration to normal, and (3) a marked improvement of both physical and mental states. Van den Branden and Van Hoof (4), who have continued the observations and treatments in Léopoldville, reported in October, 1923, the condition of 55 patients first treated three years previously. The period of observation after treatment extended from six months to two years and seven months. Twenty of these patients were early cases with normal cerebrospinal fluids; all were alive and in good health when last seen with negative blood, lymph gland and spinal fluid examinations. Thirty-five patients were advanced cases of various types, including several with pronounced lethargy. Three very advanced patients had died. Thirty-two patients were alive and well with negative blood and lymph gland examinations; in 16 the spinal fluid was normal while slight abnormalities persisted in the others. The amount of tryparsamide administered to this group of patients varied greatly owing to conditions governing the [illegible] and ranged from 2.6 to [illegible] grams. In the light of our present knowledge, however, it appears that many of these patients were insufficiently treated so that the excellent results attained are all the more striking.

A [illegible] group of patients treated with tryparsamide [illegible] working at Yakusu, near Stanleyville, on the [illegible] Congo, has recently been reported. The therapeutic results obtained are of [illegible] [illegible]

[illegible]

ing of 8.0 to 27.0 grams. Chesterman reports that 15 out of 37 patients, or 40.5 per cent., have remained well and without sign of relapse for periods averaging over two years from the end of treatment, and he expressed the opinion that the failures were due in many instances to faulty or insufficient dosage. The physical and mental improvement of Chesterman's patients was marked, as was the case with the Leopoldville group.

Only preliminary reports are at present available from the French physicians now using tryparsamide in Africa. Letonturier, de Marqueissac and Jamot (6), who have reported on 14 patients treated in the Cameroons, are most impressed with the action of the drug on advanced patients and state that to their knowledge no other drug is endowed with such a power of [illegible] penetration or has such a beneficial effect upon the clinical symptoms of advanced patients.

In New York (2) two Americans in the advanced stages of sleeping sickness have been successfully treated with tryparsamide. One patient, whose history has recently been reported by Morgan (7), had relapsed 2 months after treatment with Bayer 205 and [illegible] typical symptoms of an advanced infection [illegible] lethargy, her condition was extremely grave. Tryparsamide was administered intravenously in [illegible] over a period of 13 months and she has been given a total amount of 63.0 grams. Clinical improvement was observed after the initial dose of the drug and by the end of the first course of ten doses [illegible] physical and mental condition appeared normal [illegible] she has resumed her household [illegible] duties which have only been interrupted [illegible] additional treatment administered. Physical examinations have continued to be negative, the last one being [illegible] months after the cessation of treatment. The condition of the [illegible] American was fortunately [illegible] tryparsamide amounting to [illegible] grams were administered by Dr. K. M. Lewis (8) with a prompt clinical response and a rapid [illegible] to the normal state of the cerebrospinal fluid. The patient's condition was reported to be [illegible] 10 months later.

From various reports, both published and unpublished, dealing with the therapeutic results obtained with tryparsamide in African sleeping sickness, the system of treatment at present recommended is the administration of 24.0 to 30.0 grams in early cases and from 50.0 to 70.0 grams in advanced cases. The treatment for advanced patients should be given in two or three courses separated by intervals of 2 or more months, and each course should consist of eight to ten weekly doses. The size of the individual dose most frequently used is 3.0 grams and the intravenous route of administration has so far been followed almost exclusively.

Tryparsamide is now being widely used in the Belgian Congo at the request of the Colonial Government, and it has recently been supplied to the British and French colonies in tropical Africa. The results of its use under various conditions of field administration and in different parts of Africa will be published from time to time. The chronic nature of African sleeping sickness and its tendency to relapse are formidable obstacles in obtaining authentic cures and it is the realization of these facts that has led us to emphasize the necessity of continued observation of treated patients for long periods of time. However, if future reports are as encouraging as those briefly summarized above and if the treatment of the native population in infected districts can be carried out on a large scale, it is probable that the control of African sleeping sickness may eventually be accomplished.

LOUISE PEARCE

ROCKEFELLER INSTITUTE FOR
MEDICAL RESEARCH

BIBLIOGRAPHY

1. Jacobs, W. A., and Heidelberger, M.: *J. Exp. Med.*, 1919, xxx, 411.
2. Brown, W. H., and Pearce, L.: *ibid.*, 1919, xxx, 417, 437, 455, 483.
3. Pearce, L.: *J. Exp. Med.*, 1921, xxxiv, No. 6, Supplement No. 1.
4. Van den Branden, F., and Van Hoof, L.: *Bull. Soc. path. exot.*, 1923, xvi, 606.
5. Chesterman, Clement C.: *Trans. Roy. Soc. Trop. Med. & Hyg.*, 1923, xvi, 394 and *ibid.*, 1924, xviii, 131.
6. Letonturier, de Marqueissac, and Jamot: *Bull. Soc. path. exot.*, 1924, xvii, 692.
7. Morgan, H. J.: *Am. J. Med. Sci.*, 1924, clxvii, 827.
8. Lewis, K. M.: Personal communication.

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From various reports, both published and unpublished, dealing with the [illegible] results obtained with tryparsamide in African sleeping sickness, the system of treatment at present recommended is the administration of 24.0 to 30.0 grams in early cases and from 50.0 to 70.0 grams in advanced cases. The treatment for advanced patients should be given in two or three courses separated by intervals of 2 or more months, and each course should consist of eight to ten weekly doses. The size of the individual dose most frequently used is 3.0 grams and the intravenous route of administration has so far been followed almost exclusively.

Tryparsamide is now being widely used in the Belgian Congo at the request of the Colonial Government, and it has recently been supplied to the British and French colonies in tropical Africa. The results of its use under various conditions of field administration and in different parts of Africa will be published from time to time. The chronic nature of African sleeping sickness and its tendency to relapse are formidable obstacles in obtaining authentic cures and it is the realization of these facts that has led us to emphasize the necessity of continued observation of treated patients for long periods of time. However, if future reports are as encouraging as those briefly summarized above and if the treatment of the native population in infected districts can be carried out on a large scale, it is probable that the control of African sleeping sickness may eventually be accomplished.

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1. Jacobs, W. A., and Heidelberger, M.: *J. Exp. Med.*, 1919, xxx, 411.

2. Brown, W. H., and Pearce, L.: *Ibid.*, 1919, xxx, 417, 437, 455, 483.

3. Pearce, L.: *J. Exp. Med.*, 1921, xxxiv, No. 6, Supplement No. 1.

4. Van den Branden, F., and Van Hoof, L.: *Bull. Soc. path. exot.*, 1923, xvi, 606.

5. Chesterman, Clement C.: *Trans. Roy. Soc. Trop. Med. & Hyg.*, 1923, xvi, 394 and *Ibid.*, 1924, xviii, 131.

6. Letonturier, de Marqueissac, and Jamot: *Bull. Soc. path. exot.*, 1924, xvii, 692.

7. Morgan, H. J.: *Am. J. Med. Sci.*, 1924, clxvii, 827.

8. Lewis, K. M.: Personal communication.

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Stuckey.
T. Shuckburgh.
O. Davis.
O. Grindle.
T. Masterton Smith.
Ormsby-Gore.
Amery.

C. D.
11 MAR

DRAFT.

13 March 1925.

Denise Pearce

Madam,

I am to ack. the rec[t] of your letter of the 17[th] of Feb[y] addressed to Sir Herbert Read, ~~who has recently been appointed~~ Governor of Mauritius, regarding the proposed visit of Dr Chesterman to Kenya, Uganda & the T.T.

2 d/fs

T.

2 Copies of your letter have been sent to the Governors Concerned of the Dependencies in order that they may be apprised of

Dr Chesterman's forthcoming visit

(Signed) J. FRE[illegible]EEN

MI [illegible]/10144/25 9A.

[illegible]

1st March 1925

Sir

DRAFT.

With ref to my desp No

Kenya No. 288 (16725) 492
Uganda No. 84 248
T 131 290

} of the 26th of Aug 1924

O.A.G.
O.A.G.

I have etc to transmit to you for your info the acc. copy of a letter from Dr. Louise Pearce regarding the proposed visit of Dr. C. C. Chesterman to Kenya, Uganda and the T.T.

MINUTE.

Mr. Downie 5/3/25
Mr. Bottomley 10.3.25
Mr. Green 10.3
Mr. Davis.
Sir G. Grindle.
Sir H. Read.
Sir J. Masterton Smith.
Mr. Ormsby-Gore.
Duke of Devonshire.

Covnor

Edfs.

2. Your Medical Dept will no doubt welcome the opportunity of

discussing with D- Chesterman
the use of tryparsamide in the
treatment of sleeping sickness.

3. A similar despatch has been
sent to the O[fficer] A[dministering] G[overnment] of (1) Uganda a Tang
(2) Kenya a
(3) Kenya & Uga

(Signed) L. S. AMERY.