

BRIEF REPORTS

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TREATMENT OF LEPROSY BY METHYLENE BLUE

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Montel (7) published in March, 1934, a highly optimistic preliminary note on the use of methylene blue as a "new treatment" of leprosy. The method as described and used by him is not new at all! It was first employed in Rio de Janeiro, during 1927, by the late Professor Miguel Couto and his assistant Mario Rangel. In the middle of 1927, a few months after my return from Asia where I had been making a survey on leprosy, Couto invited me to see his patients at the Hospital São Sebastião who were being treated by intravenous injections of a 1 per cent solution of methylene blue. They were conspicuously "tattooed" with the dye, but I had to declare frankly that no objective improvement could be seen in their condition.

In September of the same year Couto (3) presented a report on the subject to the Academia Nacional de Medicina, saying that only two cases out of twelve that had been treated for several months had showed slight improvement of temporary character. In ten cases there was absolutely no therapeutical result. The patients who had ulcers continued with them, and the lepromata persisted in those who had them. After four months the active leprosy lesions were still blue, because of disturbance of circulation and reduction of the dye. Couto talked about specific impregnation in such lesions.

From the thesis of Rangel (9), who continued the experiment of Couto, I summarize the following conclusions:—

(1) All the thirteen lepers treated by methylene blue showed febrile reactions between the first and fourth injections, the temperature in some of them going beyond 40.5°C.

(2) In eleven of the thirteen the active lesions became blue, this coloring lasting a long time after the treatment was discontinued.

(3) Only two out of the thirteen presented perceptible improvement.

(4) In most of the cases which had ulcers that improved, these lesions recurred.

This method of treatment was abandoned as unsuitable. Montel has rediscovered it and brought it again into vogue. His conclusions, arrived at after treating a small group of patients (four), are much more optimistic than is justified. Earlier (in May, 1932), he recommended the Dausse collobiase in which the chaulmoogra oil is extremely dilute, and gave incorrect information with regard to the other derivatives of that oil (6). Most recently (in October, 1934), he has abandoned methylene blue and has started to treat his patients with neutral red (8).

Afanador (1), in November, 1934, reported his experience with the use of methylene blue in twenty cases in France (Valbonne Asylum). He gave each of them 280 cc. of a 1 per cent solution, and had some disagreeable reactions but no great improvement.

Gonzales Medina (5), in December, 1934, reported treatment of three lepers in Spain with what he also called a "new treatment"; the notable improvement reported I cannot believe will prove lasting.

At the Santo Angelo leprosarium at São Paulo, Brazil, methylene blue was used extensively during the second part of 1934 with great expectations, but Anderson (2), who saw the patients in December, informed me that the results were deceiving.

Ryrie (11), summarizing the results of treating leprosy with several dyes, says of methylene blue, among certain others, that "In no case were there definite signs of clinical improvement; in some cases the patients became slightly worse and the investigation was abandoned."

Most recently Rao (10), who is an experienced leprologist, reporting the results obtained with brilliant green, trypan blue, and Bonney's blue, arrived at the conclusion that they "were found to have no appreciable effect either on the course of the disease or on the causative organisms."

Leprologists aware of these experiences, and familiar with the article on toxicity of certain proposed antileprosy dyes by Emerson and Anderson (4), will not use methylene blue and other dyes in leprosy.

REFERENCES

- (1) AFANADOR, A. Traitement de la lèpre par les injections intraveineuses de bleu de méthylène. Bull. Soc. Path. exot. 27 (1934) 805.
- (2) ANDERSON, H. H. Report to the University of California. December, 1934. (Not published.)

- (3) COUTO, M. Tratamento da lepra por injeções intravenosas de Azul do methyleno a 1%. Bol. Acad. Nac. Med. 99 (1927) 413-416.
- (4) EMERSON, G. A. and ANDERSON, H. H. Toxicity of certain proposed anti-leprosy dyes: fluorescein, eosin, erythrosin and others. Internat. Jour. Lep. 2 (1934) 257-263.
- (5) MEDINA, G. Nota previa sobre un tratamiento nuevo de la lepra. Actas Dermosifil. Madrid. 27 (1934) 320.
- (6) MONTEL, R. Quelques considérations sur le traitement de la lèpre. Bull. Soc. Path. exot. 25 (1932) 404-408.
- (7) MONTEL, R. Un nouveau traitement de la lèpre. Note préliminaire. Bull. Soc. Path. exot. 27 (1934) 220-222.
- (8) MONTEL, R. et TRUONG VAN-QUE. Le "Rouge Neutre" en injections intraveineuses dans le traitement de la lèpre. Note préliminaire. Bull. Soc. Path. exot. 27 (1934) 715-716.
- (9) RANGEL, M. Lepra e sue tratamento. Acção do Azul de metheleno. These de doutorado em medicina, 1927, Rio de Janeiro.
- (10) RAO, G. R. Lep. Rev. 6 (1935) 4-11.
- (11) RYRIE, G. A. A preliminary report on the action of certain dyes in leprosy. Trans. Roy. Soc. Trop. Med. and Hyg. 27 (1935) 85; *reprinted in* Internat. Jour. Lep. 1 (1933) 469.