

## THE POSITIVATION OF THE MONTENEGRO TEST DURING THE TREATMENT OF MUCO-CUTANEOUS LEISHMANIASIS

### A case report

Raymundo Martins CASTRO (1), Maria Elizabeth N. NANNI (2),  
Lucia E. Narbot ERMETICCE (3) and Kenji TOYODA (3)

### SUMMARY

It is reported a case of muco-cutaneous leishmaniasis with only one lesion supposed to be of one month duration. The histopathological test showed numerous leishmania bodies. Four Montenegro's tests were performed three of them negative, only the last one, after 42 days of the first consultation was positive. We concluded that in this case the positivation of the intradermal depends on the use of early specific therapy (Amphotericin B with corticosteroids) used even successfully in the treatment.

### INTRODUCTION

The Montenegro test may be negative in patients with recent lesions of muco-cutaneous leishmaniasis. It turns positive as the process progresses and is always markedly positive in patients with long lasting disease<sup>5</sup>.

MEDINA & ROMERO<sup>3</sup> reported the responsiveness of the Montenegro test in patients under treatment by antimonial salts.

Amphotericin B is an antibiotic that produces rapid healing and parasitological negativation of the lesions in muco-cutaneous leishmaniasis. It has been used in this country together with steroids, an immunosuppressing drug, since SAMPAIO<sup>6</sup> standardized its use for South American blastomycosis.

We tried to investigate how would the Montenegro test respond in a patient with recent disease under treatment by Amphotericin B.

### Case report

A 57 year old negroid man, agricultural worker, from Aguai (State of São Paulo, Brazil) came to the Dermatologic Clinic of the Campinas School of Medicine.

A vegetating lesion, centrally ulcerated, covered with a sero-purulent exsudate, friable, was noted on the left malar region. A small (2.0 x 1.0) cm. Lymphnode, firm, not tender, was felt on the left submandibular region.

He had been otherwise in good health. Deformity of the third phalanx and the nail of the first finger of his left hand was also noted.

His disease had begun about a month ago, as a small "pimple" in his face. Following a cut during shaving the lesion became ulcerated. Although penicillin ointment was used, the lesion enlarged and started itching.

*Pathology* — First biopsy — 11-6-1971 — Dermal infiltrate of lymphocytes, plasma cells and histiocytes, with many neutrophil polymorphonuclears beneath the epidermis; epithelial hyperplasia. A great number of *Leishmania* bodies is present, single or grouped, forming "nests". Second biopsy (21-7-1971) Chronic infiltrate consisting of histiocytes, lymphocytes and plasma-cells. No leishmania bodies were seen. Biopsy of the Montenegro intradermal test: (26-7-1971) Dermal plasmolymphocytic infiltrate; in the

From the Department of Medicine, Dermatologic Division, State University of Campinas, Faculty of Medical Sciences, São Paulo, Brazil

(1) Ex-Professor of Dermatology

(2) Assistant Professor of Dermatology

(3) Resident of Dermatology

dermal-epidermal limit there is a granulomatous infiltrate of epithelioid cells showing areas of necrose and polymorphonuclear neutrophils (Positive Montenegro test).

*Treatment* — A total amount of 1.235 mg of Amphotericin B was given to the patient together with 6.6 g of hydrocortisone, and he was considered clinically cured in about 40 days.

### Comments

It is difficult to observe the responsiveness of the Montenegro test related to the duration of the infection as it has been impossible to find out when it started<sup>1, 2, 3, 5</sup>.

AZULAY & SALGADO<sup>1</sup> studied one leishmaniasis epidemic among army paratroopers in Amazonia, who were exposed to the disease vectors in an endemic area during four days. Seven out of 22 individuals developed cutaneous lesions. The lesions appeared 18 days after the first day of exposure in four patients, after 23 days in two patients and in only after 33 days.

The Montenegro test was done 42 days after the first day of exposure and was positive in all of them.

One patient with skin lesions of four month duration seen by CURBAN & BRITO<sup>2</sup> had responsiveness to the Montenegro test only after the fourth trial that took place 63 days after the first visit.

In our patient the cutaneous lesions lasted for nearly 30 days and it was impossible to determine the duration of the infection as the patient came from an endemic area. The first biopsy revealed a great number of leishmania bodies; the Montenegro test was negative at the time. Further tests were performed three times with intervals varying from five to 17 days and remained negative.

Forty days after the first consultation a second biopsy was negative for leishmania bodies; the patient had already taken 635 mg of Amphotericin B and 4.0 g of hydrocortisone. The intradermal test was positive two days later (8 mm induration).

We concluded that the positivation of the Montenegro test, in this case, did not depend on the specific therapy and the use of steroids which are immunosuppressive drugs.

### RESUMO

#### *Posituação da reação de Montenegro durante o tratamento da leishmaniose tegumentar. Relato de um caso*

Foi estudado um caso de leishmaniose tegumentar americana com lesão única que datava de um mês e cujo exame histopatológico revelou a presença de numerosas leishmânias. A reação de Montenegro foi negativa três vezes, tendo-se positivado 42 dias após a consulta inicial, estando o doente sob tratamento com anfotericina B e corticosteróides.

Concluem os Autores que no caso estudado a posituação da reação de Montenegro não foi influenciada nem pela administração precoce de anfotericina B, tratamento específico e de alta eficiência nem pela ação imunossupressora do corticosteroide administrado juntamente com o antibiótico.

### REFERENCES

1. AZULAY, R. D. & SALGADO, U. — Surto epidêmico de leishmaniose tegumentar observado em paraquedistas do exército na Amazonia. *Medicina Cutanea* 1:347-352, 1966.
2. CURBAN, G. V. & BRITO, A. de — Intradermorreação de Montenegro negativa na leishmaniose tegumentar americana recente. *Medicina Cutanea* 3:565-568, 1969.
3. MEDINA, R. & ROMERO, J. — Estudio sobre la leishmaniasis tegumentaria en Venezuela. *Dermat. Venezol.* 1:30-86, 1957.
4. PESSOA, S. B. & BARRETTO, M. P. — *Leishmaniose tegumentar americana*. Rio de Janeiro, Ministério de Educação, 1948.
5. PESSOA, S. B. & PESTANA, B. R. — A intradermorreação de Montenegro nas campanhas sanitárias contra leishmaniose. *São Paulo Méd.* 15:133-151, 1940.
6. SAMPAIO, S. A. P. — *Tratamento da blastomicose sul-americana pela anfotericina B*. Tese. São Paulo, 1960.
7. SAMPAIO, S. A. P.; CASTRO, R. M.; DILLON, N. L. & MARTINS, J. E. C. — The treatment of muco-cutaneous Leishmaniasis with Amphotericin B. A report of 70 cases. *Int. J. Derm.* 10:179-181, 1971.