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LOW DOSE GLUCANTIME THERAPY IN *LEISHMANIA VIANNIA BRAZILIENSIS* (Lvb) INFECTIONS

J.M.L. Costa and P.D. Marsden

Good drug trials in leishmaniasis with carefully controlled groups are rare. Recently Ballou et al[1] were able to establish that 20mg Sb^v/kg body wt for 20 days was more efficacious in closing leishmanial ulcers due to *Leishmania braziliensis panamensis* than 10mg Sb^v/kg/body wt for a similar period. Conditions for this trial were much more favourable than those where we work namely field clinics in the cacao growing region of Bahia, Brazil. Here almost all human infections are due to Lvb. We have had primitive field clinic facilities and an ovewhelming press of patients. In 1984 an epidemic occurred in the region of Corte de Pedra where the incidence figure for 1984 reached 83 patients per 1,000 with acute cutaneous ulceration due to Lvb[4] (França et al, in press).

During the epidemic our clinic facilities were so strained that we were obliged to use low doses of pentavalent antimonial since the supply was limited. Many patients received only one ampoule (the equivalent of 8mg Sb^v/kg body wt for a 50 kilo man) for a short course of 10 days on 1,2 or 3 occasions. Others when the supply was better received 2 ampoules (16mg Sb^v/kg body wt for similar periods). Previously we have reported the efficacy of ten day courses at a higher dosage 28mg/Sb^v/kg doby wt[5] but now we had the opportunity to examine the efficacy of much lower doses.

The current recommendation now that glucantime is available from government sources is 20mg Sb^v/kg per day for 20 days, but we suspect that many patients do not complete the series. Due to distance from the clinic doses usually have to be given at home.

The results are set out in Table. To our surprise we had ulcer closure within a few months in many patients using the lowest dose of antimonial namely 8mg Sb^v/kg/day or 10 days. Of a total of 40 patients 16 closed with a single course, another 9 with two courses and only 4 failed to close after 3 courses of 10 days. With double the dose in similar interrupted periods good results were achieved with one, two or three series. While ideally longer courses are to be preferred the field conditions at the time precluded such regimens. Also, as is so common in the field, we could not garantee that the patient took the ampoules of glucantime in the manner prescribed. However both these aspects mitigate against ulcer closure and we wish to draw attention to relatively good results in Lvb infections with low doses of drug in interrupted schedules.

Also two years later we were able to trace 53 of the 79 presented patients and only two had active lesions and no patient had develop signs of mucosal disease. A previous study of ours suggests that in two years follow up 50% of the patients who will develop mucosal disease have clinical evidence of this metastasis[6]. These result underline our ignorance regarding the most beneficial doses of pentavalent antimonial for patients with simple skin ulcers due to Lvb. They suggest that lower doses of antimonial could be used than is currently suggested for this form of the disease with little risk of mucosal metastasis. In view of the cost of glucantime and the difficulty of field application this possibility should be further explored. It must be emphasised that established mucosal lesions due to Lvb present quite a different problem and such minimal doses are not indicated[8]. Since there are no new strategies for leishmaniasis control the use of low doses for simple cutaneous disease (a procedure long advocated by the Brazilian Ministry of Health) should be considered. Non responders could receive higher doses.

We are still ignorant of the immunological factor determining healing in ulcers due to Lvb. Both macrophage and lymphocyte function appear to be intact[2] and since the healing process can be spontaneous drugs are abviously not essential to trigger this response[7].

In a region such as the one under consideration any patient with primary cutaneous leishmaniasis must be advised as to the inconveniences of antimonial therapy, the necessity to rest after injections, to refrain from alcoholic or exercise excess and the importance of completing the recommended series of injections. He must also be warned of early signs of mucosal involvement (nasal blockage, epistaxis, flesh leaving the nose (granuloma) and if these occur the necessity to seek medical help. The current practical approach to the problem the of this frequent Brazilian endemic disease is the establishment of adequate clinical facilities in the area to meet the peoples need.

Núcleo de Medicina Tropical,
Universidade de Brasília

PATIENTS TREATED WITH ONE, TWO OR THREE OR MORE SERIES OF 10 DAYS GLUCANTIME AT TWO DIFFERENT DOSAGE SCHEDULES (COSTA (1986)

Dose Sb^V/kg/day X 10	Number of Series	Initial observation			At more than 2 years*	
		Mean follow up (months)	Number active/ Number healed	Mean closure time (months)	Number active/ Number healed	
8	1	13.6	1/17	4	0/15	
8	2	12	0/9	5.2	0/3	
8	3 or more	12	4/14	5.7	1/10	
16	1	14	2/12	3.9	0/6	
16	2	13.8	3/13	5.7	0/9	
16	3 or more	15.9	3/14	8.7	1/10	
Totals			13/79		2/53	

(*) Of 53 patients seen at more than two years two had failed to heal and no relapse was recorded.

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