

CUTANEOUS LESIONS WITH VERY LONG DURATION AS A COMPLICATION OF LEISHMANIZATION

H. Amini, M.D.*

Key Words: *Leishmaniasis, Leishmanization, Iran*

ABSTRACT

A list of 28 patients is given in whom the duration of the sore at the site of Leishmanization has been 3 to 7 years.

The problem of cases of cutaneous Leishmaniasis with long duration as a complication of Leishmanization is discussed.

Although this complication is very rare, i.e. a few hundreds among more than 2 million people inoculated, its effect on the leishmanization program has been considerable, as reflected in reports by dermatologists the situations in which Leishmanization is recommended is discussed.

INTRODUCTION

Studies in different parts of the world have shown that cutaneous leishmaniasis due to *L. major* has an average duration of 4 to 9 months. In a study on Leishmanization in a town in Isfahan region of Iran, it was shown that the duration of the disease with the same strain of *L. major* prevalent in the region is longer than what is seen in natural infection (3).

* Dept. of epidemiology and Biostatistics, School of Public Health and Institute of Public Health Research, tehran University of Medical Sciences, tehran-Iran

Between 1982 and 1988 an expanded programme of Leishmanization was launched in Iran (4,5). Our laboratory was the only centre for production of *Leishmania* culture, as well as for evaluation of the programme. Since 1986, many cases of cutaneous Leishmaniasis with very long duration at the site of Leishmanization have been referred to us. This paper is a short report on these cases and their effect on the control of leishmaniasis through Leishmanization.

Methods and results

In the programme of Leishmanization in Iran, more than two million people (soldiers and also inhabitants of the highly infected focus of Isfahan) were inoculated by *Leishmania* culture. During the programme, one of the main problems was the development of sores with very long duration in some of the inoculated individuals. Although the incidence of such cases was extremely low, the absolute number was considerably high due to the very large number of people vaccinated. As mentioned before, the laboratory of the Institute of Pulic Health Research was the only responsible centre for production of *Leishmania* culture for Leishmanization, therefore it is natural that most of the cases with very long duration are referred to this laboratory. Between 1984 and 1990.

We saw more than 300 such cases, each one with sores lasting for more than three years. Out of these, about 20 cases were the real difficult ones, the sores lasting for many years. Table 1 shows the characteristics of these cases, as well as the duration of their sores.

The size of the lesions varied from patient to patient. On the average the sore is a round lesion with of 2-3 Cm. diameter with or without satellite lesions. The lesions are covered with elevated red papules connected with each other, some of them ulcerated and producing exudates.

Because of the social stigma attached to any chronic cutaneous sore lasting for years (possibly due to the similarity to what ordinary people believe to be leprosy), the patients are extremely unhappy with these sores and consult practically every dermatologist in

their area. Many of the dermatologists practicing in endemic areas are complaining about this complication without knowing the actual number of leishmanized people.

As regards treatment, we have tried all available treatment methods, including local injection of pentavalent antimonials (Glucantime or pentostam) and systemic treatment with these same drugs (one or two courses of 10 to 14 days). The results in some cases have been satisfactory, while in some others we have had complete failure.

We do not know exactly what the real cause of these long lasting sores is. It is highly probable that these people are suffering from some sort of deficiencies in their cellular immune response toward *L. major* which does not show itself in normal situations. It seems that these long lasting sores have nothing to do with the type of culture medium used for the preparation of the *Leishmania* culture, because, before Leishmanization programme, cases of cutaneous Leishmaniasis with very long duration (up to more than 40 years) had been seen at the laboratory of the Institute of Public Health Research. Nadim reported some 15 of these cases at the 3rd. International Congress of Parasitology in 1973 in Munich(2). Recently, noticing the results of immunotherapy reported by Convet et. al. in Venezuela, we tried to treat some of the above cases with immunotherapy, at the Razi Institute, Tehran, Iran with the support of WHO/TDR Programme. The method of immunotherapy was the same as that recommended by Convet et. al.(1), with some modifications. The following shows the results of treatment in one case : Mr.H.B., age,26 years, weight 83 kgs:He was Leishmanized in March 1983. He was under treatment by antimony derivatives for several courses without any improvement.

The results have been quite satisfactory in several other cases. This study is going on and the final results will be reported later.

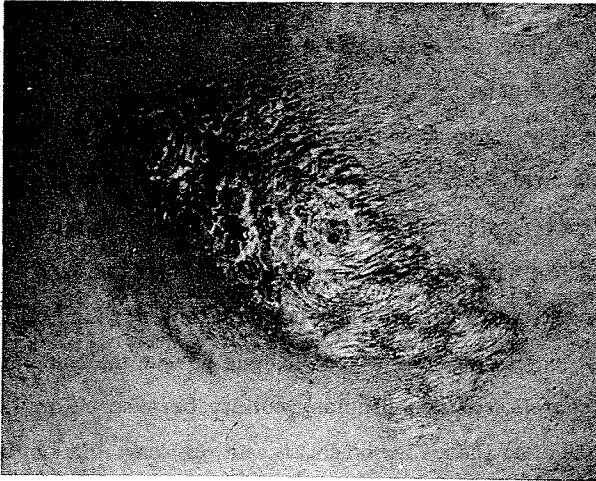
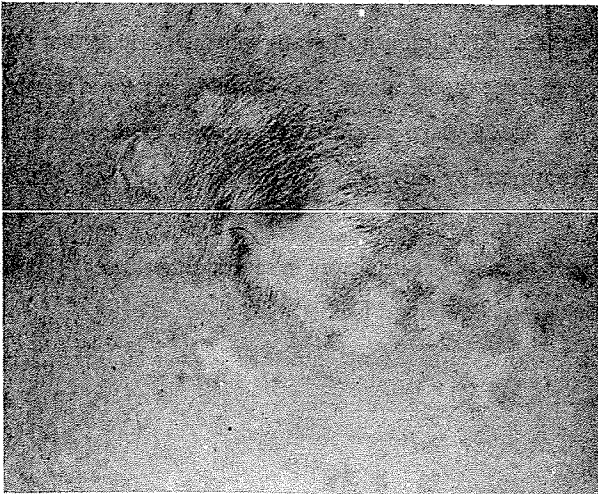


Fig1: A, Before treatment



B, After treatment

Discussion

Cases of Leishmanized individuals with sores of very long duration have resulted in widespread complaints of dermatologists from various parts of the country.

However, as mentioned before, the incidence of this complication is very low for this reason in exceptional situations (very high risk of contraction of the disease) is leishmanization recommended in only foci with moderate or low endemicity; Leishmanization is not recommended as a control measure.

This type of reaction should be taken into consideration in any programme of control of Leishmaniasis by Leishmanization in highly endemic areas or high risk groups. Research is needed to identify people at a higher risk of developing this type of sores before Leishmanization.

Table1: Age, Sex, Occupation and duration of the lesions in cases with very long duration of the sores after Leishmanization

No.	Name	Age	Sex	occupation	Duration in years
1	J.S	24	Male	Soldier	4
2	M.S.K	23	"	"	4
3	E.M	24	"	"	4
4	Gh.A	24	"	"	3
5	Sh.R	24	"	"	5
6	J.A	26	"	"	3
7	D.K	23	"	"	4
8	H.A	23	"	"	4
9	E.R	24	"	"	3
10	N.D	23	"	"	3
11	L.A	25	"	"	3
12	T.F	23	"	"	3
13	B.A	30	"	"	3
14	Y.M	25	"	"	4
15	R.A	26	"	"	3
16	M.F	25	"	"	3
17	R.M	27	"	"	3
18	H.Gh	25	"	"	5
19	G.A.H	18	"	Revolutionary gurad	5
20	M.A	26	"	"	7
21	M.N	25	"	"	6
22	G.E	24	"	"	6
23	Y.S	25	"	"	8
24	A.D	25	"	"	6
25	H.B	26	"	"	7
26	R.Z	36	Female	House wife	27
27	R.R	26	"	" "	5
28	D.N	20	"	" "	6

*Duration since last time seen in the laboratory.

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