VALUE OF SEGREGATION OF BACTERIOLOGICALLY POSITIVE CASES IN THE PROPHYLAXIS OF LEPROSY

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Thanks to important progress made in the last several decades in the clinical field and the pathology, immunology and therapy of leprosy, the methods of combating the disease have also advanced. Whereas previously the essential and almost exclusive means of prophylaxis was segregation of the patients, now antileprosy prophylaxis is not only more humane but also more scientific. It is complemented by other measures of positive and extraordinary value, such as the location of new foci, periodic examination of contacts, health education, mass examination, and early diagnosis and treatment.

In the last few years, however, there has appeared in several Central and South American countries a new tendency in the matter of prophylaxis, which has become widespread since the Pan-American Leprosy Conference of 1958 in Belo Horizonte, Brazil (1). This tendency consists not only in depreciating the value in prophylaxis of segregating bacteriologically positive cases, but also in relating segregation (especially compulsory segregation) as the last resort, and even considering it useless and actually prejudicial. In some of the Central American states the health authorities no longer are concerned with segregation; they do not recommend it or insist on it even for the most highly contagious cases.

I have not for a moment shared that point of view, as stated in an article published some time ago in Argentina (2). After that article appeared several Latin-American leprologists wrote to me, saying that their opinions agreed almost entirely with mine. But I consider it necessary and important that we should be aware of the points of view of leprologists of other countries of different geographic, climatic, social and economic conditions. It is the purpose of promoting the wide and varied opinions on the value of segregating positive cases in the prophylaxis of leprosy that has prompted me to write further on the matter, and to that end to ask a series of questions and to complement them with the corresponding replies. I have not the least doubt that the replies with arguments of leprologists from other countries with different conditions will be beneficial.

Question No. 1.—Is, or is not, compulsory isolation of bacteriologically positive cases prejudicial to antileprosy prophylaxis?

Reply.—As a rule, yes, it is.

Argument.—I am firmly convinced that compulsory segregation, generally applied, has been and will always be disadvantagous. Ab-

ruptly to uproot a patient from his home, although he be strongly positive, not giving him any consideration or trying to solve his family and financial problems, and to remove him to a remote leprosarium, is a measure not only inhumane but also unprofitable. It is such cruel and unjustified measures that have influenced, and will influence, the patients to fear such action and to hide their disease as long as they can.

Compulsory segregation, in my opinion, should be practically abolished. Recourse should be taken to it only in highly exceptional cases, such as that of a highly positive patient who, having been offered a solution of his problems and notwithstanding the employment of all means of persuasion, yet fails to comply with these two conditions: strict home segregation and adequate antileprosy treatment.

Question No. 2.—With persuasive methods, is it possible to segregate the majority of the bacteriologically positive leprosy cases?

Reply.—Yes.

Argument.—My experience of more than thirty years with leprosy patients, as well as what I have gathered in my visits to other countries, leads me to maintain that, although there is a small proportion of patients who are rarely amenable to persuasion—especially those of high social and economic status, who present to the physician a difficult task in proposing segregation—nevertheless with the great majority of patients—among whom those with moderate or precarious means greatly predominate—persuasion is successful when done in a friendly and intelligent manner, convincing them that it is a temporary sacrifice which should be undergone for the sake of their loved ones. When this persuasive approach is accompanied by a solution of the economic problems of the patient and the protection of the family, isolation is almost always assured. In short, the bacillus-positive patient should not only be advised to accept segregation, but also he should be given all the means necessary to induce him to do so.

Question No. 3—Should all positive cases be segregated, regardless of the degree of their contagiosity?

Reply.—Primarily, we should take into account the degree of infectiousness.

Argument.—It is generally admitted that the sources of infection are the bacteriologically positive patients, and that the importance of these sources is in direct relation to their degree of positivity. Hence, when we undertake to segregate patients we should, in the first place, apply that measure to the advanced and moderately advanced lepromatous cases (L-3 and L-2). Following in the order of importance, in my opinion, are the borderline, the mild (L-1) lepromatous, and the reactional tuberculoid cases. It is not necessary to send these last three groups to sanatorium-colonies; they can be placed in special wards in a general hospital. Furthermore, I believe that mild lepromatous cases

and reactional tuberculoid cases can be treated as outpatients in dispensaries, because their infectiousness is not only low but also of temporary and relatively short duration if they are given adequate treatment.

Question No. 4.—What type of establishment or institution is preferable for the segregation of positive cases?

Reply.—This varies according to the customs, the climatic conditions, the economic conditions, and the number of cases that should be segregated, but the most appropriate ones are the sanatorium-colonies and villages.

Argument.—The excessive fear of the disease, the exaggerated ideas of its infectiousness, and the scarcity of therapeutic means existing in the past centuries, prompted the authorities to segregate leprosy patients in places as isolated and remote as possible. This method was cruel and prejudical to prophylaxis, since it promoted the hiding of the patients. Today, in our endeavor to gain the confidence of the patient and to induce him to accept isolation, we should provide the places of segregation with all the elements of conditions and commodities needed to convert them into centers of attraction to the patients. These sanatoria, colonies, or villages should be located not far away from cities, and should have good means of communication in order to facilitate their provisioning, good medical attention, and especially, periodical visits of the patients' families. These places should not lack facilities for employment and for cultural and athletic activities, and especially the most effective means and equipment for therapy, which would give to the institutions prestige which should be made known to the public. In my opinion, these factors of good location, the possibilities of promoting employment, and especially, good medical attention and periodical visits of the families, are the best elements of attraction and the best walls to contain the patients.

Question No. 5—How long should the moderately advanced and advanced lepromatous cases remain isolated?

Reply.—Until they have only scarce bacilli.

Argument.—It must be recognized that the conditions required for the granting of hospital parole to moderately or far advanced lepromatous patients have in the past been excessively stringent. Parole has not only been based on clinical and bacteriologic negativity, but it has also been delayed for another year during which maintenance of their negativity has been required.

I have pointed out that those cases with which we should be preoccupied as sources of infection are the highly infectious ones, which constantly eliminate large quantities of bacilli through the skin and mucous membranes, but that we should not be so strict as to send to the sanatoria mild (L-1) lepromatous cases with only one or two isolated spots with bacilli, nor should we continue segregation of

the previously advanced lepromatous cases simply because they show residual lesions with a few fragmented bacilli or acid-fast granulations in the smears. I believe that such cases can continue their treatment on an outpatient basis, although they should be under periodic control until they become entirely negative, after which they should be followed up. This concession given the patients would help to induce voluntary segregation, and thus would be beneficial with respect to the anti-leprosy campaign.

Question No. 6.—What prophylactic value has home isolation?

Reply.—Very little.

Argument.—Many doctors, especially in South America, attribute the same prophylactic value to home segregation as they do to institutional segregation. I do not share that point of view, because in practice home isolation is not followed. Considering the good physical condition of the patients in spite of the degree of their infectiousness, it would be more onerous for them to be confined for a couple of years in a room, or a house, than to live in a large sanatorium-colony or a village which, in reality, are small towns.

The proponents of home isolation maintain that it prevents stigmatization of the patients and their families. To me this is a relative, because in a few months the neighbors and friends will eventually become aware of the fact that a leprosy patient is isolated in such a house, and hence the patient as well as his family will be stigmatized. Furthermore, only patients of good economic status can meet the cost of the commodities, the personnel, and the attention required for adequate home isolation. In short, I am not against home isolation, but I maintain that the prophylactic value of this measure is very low compared with that of institutional isolation.

Question No. 7.—If the strongly positive lepromatous cases are not isolated, what measures can be adopted to protect their babies and young children?

Reply.—It is better to separate the leprous father or mother than the healthy child.

Argument.—All admit that newly born children and those of tender age are the ones most susceptible to infection. Many advocates of non-segregation or home isolation believe that these children should be separated and placed in other homes, or in some educational institution. In my opinion, this is tantamount to prophylaxis in reverse, because the measure would be to separate the healthy and not the bacillus-bearing patient who is the source of the infection. It is said that the separation of the leprous father or mother has the serious disadvantages of breaking up and stigmatizing the family. But it can be asked, can the separation of the healthy child or children prevent these drawbacks?

Question No. 8.—Should the healthy spouse be permitted to accom-

pany the leprous partner in isolation in the sanatorium-colony if that be desired?

Rely.—The request of the healthy spouse can be granted if it is insistently made.

Argument.—This is a new aspect of the problem, and I think it important that it be submitted for the consideration of my fellow leprologists.

Experience has taught us that one of the greatest sacrifices for the patient is the separation from the spouse. More than once, in homes where there were no children or the children were grown up, the healthy spouse has insistently expressed the desire to be isolated along with the leprous partner, so as not to abandon him or her in such difficult circumstances. In my opinion, we should grant such requests, for by doing so the disintegration of the family would be prevented, and the internment of the positive patient would be facilitated. I think that the danger of exposure would not be much increased should they continue to live together in the colony instead of in their house.

With respect to the expense to the government that would be incurred by the healthy spouses, that would not constitute a problem, because the work they could perform in the colony would be more than enough to offset the cost of their maintenance.

Question No. 9—Can we, without isolation of the strongly positive cases, control and thereby eradicate the leprosy endemy in a given country?

Reply.—I believe that it would be very difficult to do so.

Argument.—It is to be taken into consideration that, even with modern treatments, a moderately advanced (L-2) lepromatous case requires from 3 to 5 years to become bacteriologically negative, and an advanced (L-3) case, from 5 to 8 years, and that if these persons continue to roam around and to pursue their normal activities they will constitute sources of the dissemination of bacilli for at least 2 and 3 years, respectively. During those periods they will expose to infection, besides the members of their own households, many people outside the family, and they are very difficult to maintain under periodic control.

Thus I believe that, if the antileprosy campaign is not carried out totally, or if the measures for detection of the sources, for periodic examination of contacts, for early diagnosis and treatment, and for health education are not complemented with segregation of the moderately and strongly positive lepromatous cases through persuasive means, such a campaign will have very little probability of success in eradicating the disease.

SUMMARY

In the form of questions and answers the following opinions are expressed and discussed:

1. That compulsory segregation of bacteriologically-positive leprosy cases is prejudicial with respect to the control of the disease.

2. That by persuasive methods it is possible to acomplish the segregation of most of the bacteriologically-positive cases to which that measure should be applied.

3. That in the application of the measures of segregation, the degree of contagiosity of the patients should be taken into account; that only those with the more severe grades of lepromatous leprosy (L2 and L3) need be isolated in sanatorium-colonies, while other bacteriologically-positive cases may be cared for in general hospitals or treated at outpatient dispensaries.

4. That the type of institution for segregation will vary according to controlling circumstances, but that in general the sanatorium-colonies and villages are best.

5. That segregated lepromatous cases need be isolated only until the bacilli become scarce, not until or after they have entirely disappeared.

6. That home isolation has very little value in prophylaxis.

7. That with respect to handling of the children of leprosy patients, it is better to isolate the infected persons than to put their children into foster homes or asylums.

8. That healthy spouses who request insistently that they be allowed to accompany the patients into isolation should be permitted to do so.

9. That it would very difficult to eradicate leprosy from an endemic country without isolation of the strongly positive cases.

RESUMEN

En forma de preguntas y respuestas se expresan y discuten las siguientes opiniones:

1. Que la segregación obligatoria de los casos bacteriológicamente-positivos de lepra resulta perjudicial con respecto al dominio de la dolencia.

2. Que por métodos persuasivos es posible lograr la segregación de la mayoría de los casos bacteriológicamente-positivos a los que debe aplicarse dicha providencia.

3. Que en la aplicación de la medida de segregación, hay que tomar en cuenta el grado de cotagiosidad de los enfermos; que solamente se necesita aislar en sanatorios-colonias, a los que tienen los grados más graves de lepra lepromatosa (12 y 13), en tanto que se puede atender en los hospitales generales o tratar en dispensarios para enfermos externos a los demás casos bacteriológicamente positivos.

4. Que la forma del establecimiento usado para la segregación variará conforme a las circunstancias que rijan el caso, pero que los sanatorios-colonias y las aldeas son lo mejor.

5. Que no se necesita aislar a los casos lepromatosos segregados más que hasta que escaseen los bacilos, pero no hasta o después que hayan desparecido los bacilos por completo.

6. Que el aislamiento a domicilio posee muy poco valor en la profilaxis.

7. Que con respecto a la atención de los niños de los leprosos, es mejor aislar a los sujetos infectados que colocar a los hijos en hogares adoptivos o asilos.

8. Que a los esposos sanos que solicitan insistentemente que se les permita acompañar a los enfermos en el aislamiento se les deje que lo hagan.

9. Que sería muy difícil erradicar la lepra de un país endemico sin el aislamiento de los casos intensamente positivos.

RESUMÉ

Les opinions qui suivent sont exposées et discutées sous la forme d'un échange de questions et de réponses:

1. L'isolement par contrainte des cas de lèpre bactériologiquement positifs est préjudiciable au contrôle de la maladie;

2. En recourant à des méthodes de persuasion, il est possible d'obtenir l'isolement de la plupart des cas bactériologiquement positifs qui devraient être soumis à cette mesure;

3. Lorsqu'on applique la ségrégation, il faut prendre en considération le degré de contagiosité des malades; seuls ceux qui sont atteints de lèpre lépromateuse avancée (L2 et L3) requièrent l'isolement dans des colonies-sanatoria; quant aux autres cas bactériologiquement positifs, on peut en prendre soin dans des hopitaux généraux ou les traiter dans des centres pour malades ambulatoires.

4. Le type d'institution auquel on aura recours pour l'isolement variera d'après les conditions de la surveillance; en général cependant les sanatoria-colonies et les villages doivent être préférés.

5. L'isolement des malades lépromateux ne s'entend seulement que pour autant que les bacilles ne soient pas devenus rares; il ne doit pas être prolongé jusqu'à ce que les bacilles aient entiérement disparu, ou même plus longtemps.

6. La valeur prophylactique de l'isolement domiciliaire est très faible.

7. En ce qui concerne la manière d'agir envers les enfants de malades atteints de lèpre, il est préférable d'isoler les personnes infectées plutôt que de placer les enfants dans des orphelinats ou des asiles.

8. Les conjoints sains qui sollicitent avec insistance de pouvoir partager l'isolement des malades devraient pouvoir y être autorisés.

9. Il semble devoir être fort difficile d'extirper la lèpre d'une région endémique sans isolement des cas fortement positifs.

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