

LEPROSY IN THE COMORES 1981-88

by

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Summary — The evolution of the leprosy endemic in the République Fédérale Islamique des Comores between 1981 and 1988 is described. Leprosy on Grande Comore seems to be extinct. On the island of Anjouan the yearly detection rate is 0,38 per 1.000 with a high multibacillary rate (34%). Leprosy is highly endemic in children: during the last 6 years, 30% of multibacillary and 44% of paucibacillary cases are detected in the <15 years age group.

Detection seems to be early as illustrated by the high proportion of paucibacillary patients with a small number of skin lesions and a low proportion of patients with severe infirmity.

In the detection process both patient's and doctor's delays are short. Most diagnoses are suspected by relatives or others who had the disease in the past and who referred the suspects directly to the specialised service.

KEYWORDS: Leprosy; Endemicity; Incidence; Comores.

Introduction

In 1981 in the «République Fédérale Islamique des Comores» treatment regimens based on rifampicin (RMP) were introduced and standardized patient data were collected. Results of the treatment regimes have been published (1, 2). The data collected for these studies provide also epidemiological information, which is analyzed in the present paper.

Information is also presented concerning the way the disease is detected and on patient's and doctor's delays.

Patients and Methodology

The population numbers of the 3 islands Grande Comore, Moheli and Anjouan are estimated at 233.000, 23.500 and 183.000 inhabitants respectively. These figures are based on the results of the population census of 1979 and taking into account a yearly increase of 2,7% (4).

Patients were detected after spontaneous presentation and examination of contacts.

The leprosy service has no female medical or paramedical personnel. The importance of this on the sexual differences in the detection rates among this muslim population is unknown. Patient's delay is defined as the time between the moment the patient becomes aware of any symptom of his/her disease and the moment he/she looks for medical help; doctor's delay as the time between the first presentation at any medical center and the moment the diagnosis of leprosy is made.

All cases had a clinical, neurological, a bacteriological (1 earlobe and 2 skin lesions or 2 earlobes and 1 skin lesion) and histopathological examination. The results were entered on a clinical file together with the invalidity scores (WHO classification).

Paucibacillary (PB) leprosy is defined as clinical and histopathological (3) ID, TT or BT leprosy with a bacterial index of less than 2 at any site examined by any technique. Multibacillary (MB) leprosy is defined as clinical and histopathologic BT, BB, BL or LL leprosy with a bacterial index of 2 or more at any site examined by any technique.

Results

Since the differences of the leprosy endemy on the 3 islands are considerable, the situation of each island should be described separately.

1. Grande Comore (GC)

In 1981, 121 patients, treated since many years with DDS, were known on GC. Examination of their contacts and investigations in many villages during the previous 2 years had not detected any new active cases. It was concluded that the disease had died out on GC. Of 37 patients who were on the register as MB only 1 patient had a BI of 4 in the earlobes and was treated with the WHO-MB regimen during 2 years. All the other patients, including 2 PB who had still active skin lesions confirmed by histopathology, were given a single dose of 1.500 mg RMP. Most of these patients have been followed for 4 years. The 2 active PB cases were cured after one year, no relapses were detected and one new case of PB leprosy was diagnosed in 1984. Biopsies taken from six suspect cases during these years did not reveal any new case of leprosy.

2. Moheli

On Moheli leprosy control activities started in 1982 and data are available until 1986 only (Table 1). During the first two years there was a relatively high intake of newly detected patients representing probably a backlog from the past. The mean annual number of cases detected between 1984 and 1986 was 11 patients, corresponding to a yearly detection rate of 0,48 per 1.000 inhabitants with a MB rate of 12%. All MB patients were males, only 1 out of 7 MB cases was in a child in 1982, none had invalidity scores of 2 or 3. Sixty percent of MB patients were males, 26% were children, 66% of whom had less than 3 lesions, and only 5% had invalidities of grades 2 and 3.

3. Anjouan

On Anjouan the new strategy started during the last part of 1982. During the first 3 years of the programme a considerable number of new PB patients

TABLE 1
Data on leprosy cases detected on Moheli 1982-86

Year	1982	1983	1984	1985	1986	Total (%)
PB total	6	26	11	12	7	62
of whom						
– 3 l (*)	5	16	6	8	6	41 (66)
± 3 l (*)	1	10	5	4	1	21
– 15 yrs	3	8	1	3	1	16 (26)
males	4	8	8	10	6	36 (60)
inval. (**)	1	—	2	—	—	3 (5)
MB total	3	—	1	2	1	7
of whom						
– 15 yrs	1	—	—	—	—	1
males	3	—	1	2	—	7
inval.	—	—	—	—	—	—

(*) less than 3 or 3 or more lesions

(**) inval. = invalidity grades 2-3

were taken into treatment (Table 2), representing probably also a heritage from the past so that the true detection rate should be calculated from the figures 1984-88. During that period the mean number of cases detected annually was 89 corresponding to a yearly detection rate of 0,98 per 1.000 inhabitants with a MB rate of 34 %. 70 % of MB leprosy patients were males, 30 % children, only 2 % had invalidity scores of 2 or 3. 48 percent of PB patients were males, 44 % were children, 52 % of the patients had less than 3 skin lesions and only 4 % had disability grades of 2 or 3.

TABLE 2
Number of patients taken into treatment on Anjouan during 1981-88

	81	82	83	84	85	86	87	88	Total
PB	23	300	142	60	70	58	61	44	758
MB	23	54	25	33	32	29	24	34	254

PB: paucibacillary cases

MB: multibacillary cases

TABLE 3
Characteristics of leprosy patients on Anjouan 1984-88
(in percentages)

MB males	70
– 15 years	30
invalidities	2
PB males	48
– 15 years	44
– 3 lesions	52
invalidities	4

During 1987-1988 information was also collected concerning patients delay and doctors delay for the MB cases. Table 4 shows that patient's delay is 1-6 months in half of the patients, the doctors delay is nihil in 86 % of the cases. However in almost all of these instances the patients presented themselves directly at the specialized (vertical) leprosy service, only a few being referred to it by the peripheral health centers. Indeed most leprosy cases were suspected by previously treated patients, either family members or others, who advised the suspects to present themselves to the leprosy service.

TABLE 4
Patient delay and doctors delay in the diagnosis of MB disease on Anjouan during 1987-88

delay in monts	patient delay (*) (%)	doctors delay (*) (%)
0	15	86
1-6	49	6
7-12	14	4
13-18	12	—
19-24	8	2
>24	2	2

(*) For definitions see text.

Discussion

The leprosy problem on Grande Comore seems to be solved. Except for the one PB case detected in 1984, no new cases were diagnosed on the island since 1980. However the medical staff will have to be vigilant for the possible occurrence of new cases on GC in the future and in the event new cases do appear, examination of contacts might be important. The eventual migration of people from Moheli or Anjouan should also be taken into account.

Because of the small population, the size of the leprosy problem on Moheli is limited. However the detection rate is as high as on Anjouan, only the future will show whether vigorous treatment of known cases may eradicate the disease from Moheli.

On Anjouan the problem is much more important. The high proportion of the disease, PB as well as MB, in children is striking and remained constant over the years, in a population 50 % of which may be estimated to be under 15 years of age. The high incidence in children points to a widespread and early exposure to infection by *Mycobacterium leprae* while the high proportion of PB patients with less than 3 skin lesions and the low proportion of patients with serious disabilities in both PB and MB disease point to early detection.

Thus although the leprosy endemy on Anjouan is relatively serious there may be positive factors for a change: early detection and rapid referral to the specialized leprosy service, at least for those who are detected.

Analysis of the data concerning detection of the disease learned that by far, most patients were suspected by other, cured, patients, who referred

them directly to the specialized service. The longest doctor's delays were for those patients who presented to the general peripheral medical services. While cured patients are excellent propagators of the good message in leprosy, it is still unknown how many cases are missed among those who present at the primary health centers.

La lèpre aux Comores 1981-88.

Résumé. — Description de l'évolution de l'endémie lépreuse en République Fédérale Islamique des Comores entre 1981 et 1988. La maladie est éteinte en Grande Comore. Sur l'île d'Anjouan le taux de détection annuelle est de 0,38 pour 1.000 avec un taux élevé (34 %) de multibacillaires. La lèpre y est fréquente chez les enfants: depuis 6 ans 30 % des malades multibacillaires et 44 % des paucibacillaires ont moins de 15 ans.

La détection de la maladie semble être précoce, ce qui est illustré par la proportion élevée de malades avec un faible nombre de lésions cutanées et un faible taux d'invalidité. Dans le processus de détection, le délai malade et le délai médical sont tous deux courts. La plupart des malades sont suspectés par des malades traités antérieurement, membres de la famille ou d'autres, qui réfèrent les malades directement au service spécialisé.

Lepra in de Comoren 1981-88.

Samenvatting. — Beschrijving wordt gegeven van de lepra endemie in de République Fédérale des Comores tussen 1981 en 1988. De ziekte is uitgedoofd op Grande Comore. Op het eiland Anjouan daarentegen bedraagt de jaarlijkse detectie 0,38 per 1.000 inwoners, met een hoge proportie, 34 %, multibacillairen. Lepra treft vooral kinderen: sedert 6 jaar zijn 30 % der multibacillaire en 44 % der paucibacillaire patiënten jonger dan 15 jaar.

De ziekte wordt vroegtijdig gediagnosticeerd gezien de hoge proportie patiënten met een beperkt aantal huidletsels en een lage invaliditeitsindex. Zowel «patient's delay» als «doctor's delay» zijn gering. De meeste patiënten worden verdacht door vroeger behandelde patiënten, familieleden of anderen, die de patiënten rechtstreeks naar de gespecialiseerde dienst verwijzen.

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