

Leprosy in the Seychelles

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Summary The early history and possible origins are outlined, and an account given of the more recent trends in the development of leprosy, based on a brief analysis of records available in the Department of Public Health.

Although the total number of patients is not high, leprosy continues to be a Public Health problem in the Seychelles which is going to require a much higher level of awareness if it is to be eradicated from this country.

Introduction: the historical development of leprosy in the Seychelles

Although the Seychelles were discovered in the early sixteenth century they were administered by the French until ceded to Great Britain following the Treaty of Paris and finally became an independent republic in 1976. From the first settlement until 1903 the islands were administered from Mauritius (Lionnet, 1972).¹ Because of this history the early development of the Seychelles is closely interwoven with that of Mauritius.

Leprosy must have been introduced into Mauritius and its dependencies soon after the islands were first settled, possibly by the direct introduction of leprosy from France, or more probably through the traffic of an infected slave, as whilst the French held Mauritius they found leprosy to be such a problem that they used the island of Diego Garcia as a place for isolating leprosy cases. Pridham (1846)² recorded that there were at least 10 cases isolated there in 1792.

Leprosy was probably not introduced into what is the present territory of the Seychelles until the early nineteenth century as Malvavois, an Administrator of the islands in the time of the French occupation and a prolific writer, makes no mention of leprosy, or the use of any island as a leprosarium, although Fauvel (1909)³ records that he does mention the existence of a hospital on Mahe in 1787.

De Quincy, a successor of Malavois, stated in 1801 that there was no country as healthy as Mahe and that Europeans and blacks lived to a great age. He is also recorded by Fauvel (1909) as stating in comment on a census of the population in 1804 that there had never been any epidemics in the Seychelles.

Because of the distance involved in sending lepers to Diego Garcia, round about 1817, Providence Island was in use as a leper station for lepers from Mauritius and probably from the Seychelles as well as it was claimed that the worst cases were sent to the island by Madge who was Administrator of Seychelles from 1814 to 1826 (Dayer, 1967).⁴ It seems highly likely that leprosy arrived in Seychelles sometime prior to 1817.

By 1825, there were known to be lepers on many islands including Denis Island, Agalaga, Diego Garcia and Mahe itself. Dr Cardogan at that time stated that he had met with several slaves on various parts of Mahe who appeared to him to have leprosy.

Leprosy was becoming a more serious problem and it was therefore decided that Curieuse Island would be acquired by the Seychelles Government for conversion into a leper settlement. The island was acquired in 1829 and the first overseer appointed in that year.

Shortly after the settlement opened a ship of the Royal Navy, HMS Jaseuse, visited Curieuse. The Surgeon from the ship visited the island and inspected the settlement which at that time held 64 cases of whom 12 were women and 2 were children. Most of the cases were said to be grossly mutilated and several had lost fingers and toes.

By 1851, the number of inhabitants in the settlement had fallen to 50 of which 3 men 9 women and some children were free of disease. The following year the Government of Mauritius thought it necessary to gradually abandon the leper camp leaving only the inmates of Seychelles origin. The reasons put forward for abandoning or running down the settlement were that it had not been shown beyond reasonable doubt that the disease was contagious or infectious and probably more importantly it was argued that by closing the leper settlement it would be possible to build a general hospital on Mahe at little or no cost to the government. The settlement was not closed however, but was used as a combined settlement for paupers and lepers. The leper settlement was one side of the island whilst the pauper camp was on the other side. Mrs Barklay (1890)⁵ reported leprosy to be very prevalent in 1883. Whole families were stated to have been seen in advanced states of leprosy whilst some were so disfigured that if they were involved in a case in court they were not brought into the witness box because of their appalling disfigurement.

At the time of Mrs Barklay's visit in 1883 there were no laws in Seychelles to compel lepers to go to the leper settlement. The first ordinance regulating the conduct of lepers was enacted in 1896. An unmarried woman in an advanced state of leprosy had become pregnant by a man with advanced leprosy. Mainly

because of the effect this case had had at the time Mauritius ordinance No 39 of 1882 was enacted as Seychelles Ordinance No 12 of 1896. Even this law only allowed for the compulsory segregation of vagrant, convict or pauper lepers. This ordinance was only repealed in 1938 (Laws of Seychelles, 1971).⁶

In 1900 Curieuse leper settlement was closed and the patients removed to Round Island situated near Bay St Anne, Praslin. In 1919 the Governor thought that Round Island, Praslin, was too far from the main island of Mahe so in the following year the patients were transferred to Round Island, Mahe. The proximity of the mainland proved a disadvantage however, as there were continuous escapes and fraternization with the general population so that it was decided to move the male lepers back to Round Island, Praslin. This was done in December 1930.

It was during the period of time that the lepers were on Round Island Mahe that a concerted effort was made to bring leprosy under control which including help from the British Leprosy Relief Association. The association supplied information and literature and in an attempt to improve treatment provided the Department of Agriculture with 3 pounds of seeds of *Hydnocarpus Wightiana* with the hope that Chaulmoogra oil would be produced locally. A supply of 4% creosote was to be used to sterilize the oil produced.

The islands used at that time were not really suitable as leper settlements as they were so small and lacking in water so it was proposed in 1934 to once again build a leper settlement on Curieuse. The government took back Curieuse in 1938 and the following year the male lepers were transferred there to be followed by the return of the females the year after.

The leper settlement remained in existence on Curieuse until 1968 when the lepers in the settlement at that time were either discharged or transferred to a new settlement at Anse Louis, Mahe. This settlement was only in existence for a very short time as it was closed in 1969 and converted into an old people's home. The lepers were either discharged to continue treatment at home or those who had no home to go to remained in the care of the Anse Louis settlement.

In Seychelles the attitude and treatment of Leprosy seems to have passed from the extreme measure of banishing the leper to the furthest islands of the territory to the present day acceptance of home treatment. This attitude has probably arisen because of the availability of medical treatment but in addition there appears to have been a change in the severity of the infection so that there is no longer a pathological fear of the disease amongst the general public.

Recent Trends: An Analysis of Records currently Available in the Department of Public Health

MATERIALS AND METHODS

Leprosy is a notifiable infection disease so a register of cases known to the Public Health Department has been maintained for many years. Although

it is unlikely that notification is complete as there is still a tradition that leprosy is something much worse than an ordinary infectious disease for which effective treatment is available, it is thought that the register contains a very high proportion of the known cases of leprosy. The following facts have been collected from the leprosy register.

RESULTS

A total of 143 cases have been registered of which 83 (58%) were male and 60 (42%) were female.

Table 1 summarizes the occurrence of new cases by type of leprosy and the sex of the patient. A preponderance of males is seen for all types of leprosy throughout the period. The proportion of tuberculoid to lepromatous leprosy has changed in favour of lepromatous leprosy over the same period.

Table 1. Type of leprosy by decade of detection and sex of patient

Decade	Tuberculed			Lepromatous			Other types		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
1930-39	4	4	8	4	1	5	2	1	3
1940-44	5	3	8	8	6	14	0	0	0
1950-59	7	13	20	18	8	26	0	0	0
1960-69	2	0	2	22	16	38	1	0	1
1970-78	2	1	3	8	7	15	0	0	0
Total	20	21	41	60	38	98	3	1	4

Table 2 shows the age of the patient at the time of diagnosis as well as by the type of leprosy. The range of age at which the diagnosis of leprosy was made is wide but when the median age in each decade is obtained it shows that there has been a marked rise in the age at which leprosy was diagnosed (Table 3).

Discussion

Leprosy has been known to exist in Seychelles for more than 150 years but new cases have continued to occur each year inspite of the introduction of new forms of therapy as they have become available.

A leprosy register has been maintained for many years which shows that the incidence of new cases per thousand of the population rose from 0.58 in 1930 to 1939 to 0.67 in 1940 to 1949 and reached a peak in 1950 to 1959 of 1.34 with a fall to 0.99 in 1960 to 1969. It has been calculated that if new leprosy cases occur in the 1970s at the same rate throughout the decade the rate will be 0.49 per thousand.

Table 2. Age at time of Diagnosis by sex and type of leprosy

Sex	Type of Leprosy	Age (years)								Not Started	Total
		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70 +		
Male	Tuberculoid	1	3	55	4	0	3	1	2	1	20
	Lepromatous	1	6	12	9	8	15	3	3	3	60
		2	9	17	13	8	17	4	5	4	80
Female	Tuberculoid	0	2	1	4	11	2	1	0	0	21
	Lepromatous	0	4	7	4	3	6	8	0	6	38
		0	6	8	8	14	8	9	0	6	59

Table 3. Median age at time of diagnosis by decade

Decade	Median age (years)	Range	(years)
1930–39	7	5	55
1940–49	30	11	60
1950–59	43	10	84
1960–69	58	6	76
1970–78	42	20	65

studies of these trends are very dependent on the quality of records maintained over the same periods. Leprosy is probably the only disease for which some records are available over many decades in Seychelles.

The rise in incidence in new cases over the period 1930 to 1959 could have been due to a real increase in occurrence but was also contributed to by a more humane approach to leprosy and the increasing availability of more effective therapy which encouraged patients to come forward to be treated. Oil of chaulmoogra was replaced by the introduction of sulphetrone in 1949 and sulphetrone was itself superseded by dapsone in 1951.

The decline in new cases of leprosy since 1959 has probably been due to a number of factors amongst which would be the reduction in number of factors amongst which would be the reduction in number of infectious cases by the use of dapsone, the possible prevention of leprosy as a side effect of introducing BCG vaccination as a population-wide service in 1958 and the general improvement in nutrition and socio economic conditions that have taken place in the Seychelles. Hopefully these improvements will continue to produce a population that is more resistant to leprosy and there will be a further reduction in the number of new cases seen.

As leprosy becomes less common its importance as a factor in the differential diagnosis of skin and neurological disease tends to be forgotten and it may only be after failure of treatment for other suspected skin conditions or when sensory loss becomes obvious that the diagnosis become apparent. A further difficulty is for recently trained medical personnel who have not had the experience of seeing the early and reversible stages of leprosy sufficiently often to be confident of making a diagnosis, or realizing the need to appropriately investigate patients with undiagnosed skin lesions.

The long latent period between exposure and the appearance of symptoms makes it difficult to pinpoint the time at which exposure to leprosy occurred and the mildness of the disease in many cases prolongs the time between the occurrence of symptoms and seeking medical assistance.

The age distribution at the time of diagnosis suggests that many patients were exposed to infection in adolescence but a significant proportion must have been exposed late in life unless there was excessively long latent period or the disease was ignored for a very long time. In new cases of leprosy the delay

between the patient noticing a sign or symptom of leprosy and the diagnosis being made is about one year so that if this experience was similar during previous decades it would appear that this delay is not significant as far as the age of detection is concerned.

Cases of leprosy with known exposure to other cases before they developed the disease have had a maximum latent period of about fifteen years, from the earliest possible time of exposure. If this latent period applies to the cases without known exposure it suggests that exposure is taking place even into late middle age so that no age group is spared from infection although the younger age groups seem to be more susceptible.

Conclusions

Leprosy has been known to exist in the Seychelles for 150 years. The disease appears to be less severe now than in the past, but new cases of leprosy continue to occur.

A greater awareness of the existence of leprosy and a higher index of suspicion, leading to earlier diagnosis, would greatly improve the chances of controlling this disease in the Seychelles.

Acknowledgement

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References

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