LEPROSY IN MALTA

PROFESSOR JOS. GALEA, M.B.E., M.D., D.P.H.,
Chief Government Medical Officer, Malta,
and
DR. EDGAR BONNICI, M.D.,
Medical Superintendent, St. Bartholomew Leprosy Hospital, Malta

Malta is the largest of a group of small islands situated in the middle of the Mediterranean. The aggregate area of the whole group is 121.8 square miles and the population is 314,369, with a density of 2,624 per square mile, one of the highest, if not the highest, in the world. The latitude is 35° N. and the longitude 14° E. The group of islands lies 60 miles south of Sicily and about 180 miles north of Africa and forms part of Europe. They enjoy temperate climate with an average annual rainfall of 21.5 inches.

Malta is the largest and most important of the islands. It is 17 miles long, 9 miles wide, with an area of 96 square miles. In its capital, Valetta, is the seat of the Government, and there is also the centre of the social, economic and industrial life of the Maltese archipelago.

Gozo, which is the second largest island, is 9 miles long, 4½ miles wide, and covers an area of 26 square miles.

Comino, the smallest island of the group, is 1½ miles long and 1¼ miles wide.

Almost half of the population live around the harbour, in urban areas where there are naval docks and some industries. The rest of the inhabitants are mostly engaged in agricultural pursuits.

The standard of living is of European pattern, the social services are advancing and the medical services have reached a high level. The general health is well maintained, no major infectious diseases have occurred for many years, and the only endemic disease is undulant fever.

Leprosy is one of the oldest diseases known on the face of the earth. The prejudice against the disease is such as to sever the victims from the sympathy and the society of other men. Both the Bible and the Koran contain references to the repugnance with which the disease was looked upon in olden times. The extraordinary horror of leprosy haunted ancient and modern men and engendered that sense of leprophobia which has been the bane of the wretched victims of the disease throughout the span of the ages.

Very little material is available on the history of leprosy in Malta; its origin is unknown, but it certainly existed in the island

since remote times. It was suggested that the first cases were imported by the Phoenicians. Those sea-faring people, traders and colonizers, who came from the Near East, were the first historically recorded inhabitants of these islands. Malta was in the centre of their other possessions in the Mediterranean, owing to which position it became an emporium of a flourishing trade.

It is more probable, however, that the first cases of leprosy were introduced into these islands, in common with other countries on the Mediterranean littoral, during the Saracen domination between 870 and 1090 A.D., through the influx of leprosy-infected Arabs. In support of this contention is the fact that the only Maltese word meaning leprosy is " gdiem," pronounced " djem," the origin of which is from "judâm " or " djudhãm," the Arabic word for leprosy. The expansion of commerce and the migration of troops and mercenaries in the Middle Ages, an epoch in which war constituted one of the principal human activities, probably also played a part in the further diffusion of leprosy in these islands.

The early incidence of leprosy in Malta is obscure, but as far back as the year 1659 the disease must have been prevalent because on the 29th October on that year the Grand Master of the Order of Malta who ruled over the island, appointed a commission to provide for the care of sufferers from leprosy. On the 30th December, 1704, regulations were issued by the Chief Medical Officer of that time warning barbers against the dangers of accepting victims of leprosy as clients in their shops. From then onwards references to the disease were made from time to time in writings of medical men. By the second half of the nineteenth century the disease began to cause some anxiety among the population because in 1883 a committee composed of seven medical practitioners was appointed by the Governor " to investigate and study the incidence of the disease and to suggest means to check its spread."

Factors that no doubt had largely contributed to such an increase in the incidence of the disease were (i) the return of emigrants from countries in North Africa, where leprosy is known to be endemic, to which countries the Maltese had emigrated in large numbers during the economic depression that hit Malta between 1865 and 1872, and (ii) the stationing in Malta in 1878 of a strong contingent of Indian troops numbering over 6,000 men, in connection with the Russo-Turkish War. That this latter event had contributed largely to the increased incidence of leprosy in Malta can be seen from the earliest statistics which show that leprosy cases were most numerous in the villages lying near the place where the Indian troops had camped, the locality known as Imriehel.

In common with the policy then generally adopted in European countries, the Committee appointed in 1883 recommended that persons infected with leprosy should be compulsorily segregated. Other alternatives had been considered by the Committee before recommending segregation, but each had to be discarded. This accounts for the fact that it was only in 1893, that is after the lapse of 10 years from the appointment of such a Committee, that the first Leprosy Ordinance entitled ' An Ordinance for Checking the Spread of the Disease Commonly Known as Leprosy ' was enacted by the Local Government.

The Ordinance contained three main provisions, namely: (i) Compulsory notification of every case of leprosy immediately it became recognized by medical men and by certain other persons, namely, police officers, hotel keepers, etc.; (ii) Compulsory examination of each notified case by a Board of five experienced medical men (styled the Leprosy Board); (iii) Segregation of confirmed leprosy cases in a leprosarium so long as such cases were deemed to be a danger to the public health.

Segregation of confirmed cases in a leprosarium could not, however, be implemented immediately, as no special institution was as yet available for the housing of leprosy patients. A small number of patients in an advanced stage of the disease who had voluntarily applied for admission into an institution, were accommodated in a separate ward of the Asylum for the Aged and Incurables formerly known as the Poor House and now known as the St. Vincent de Paul Hospital.

Meanwhile the erection of a leprosarium was commenced in the locality known as Mgieret, an elevated site about 200 yards behind the St. Vincent de Paul Hospital. The male division was completed in 1900 and male patients were admitted and segregated therein. The female division, however, was not opened until 1912, when female patients were admitted and compulsory segregation was made general.

The Leprosy Hospital, known to-day as the St. Bartholomew Hospital, is a large and spacious building, having accommodation for the housing of 118 patients, i.e. 68 men and 50 women and about 40 staff. It is constructed on a plan of two lateral wings emerging at right angles from each side of a central block. The right wing is the male division, the left, the female division, while the central block, separating these two divisions, consists of the administration block, concert hall, dispensary kitchen and waiting rooms. With few exceptions, the patients are accommodated in the various wards in groups of from 4 to 10, according to the size of the ward.

Adjoining the hospital, stretching to the east and west of it and enclosed within high boundary walls, are plots of land, part of which is distributed into allotments for cultivation by the patients.

Following the repeal of compulsory segregation, the staff of the hospital at present consists of a resident medical superintendent who performs professional and administrative duties, three Sisters of Charity, a chaplain, a ward master, an assistant apothecary and clerk, 15 male and 9 female hospital attendants and 14 male and female domestic staff.

Concurrently with the opening of the leprosarium, special regulations were issued. Under these rules complete isolation from all contacts with society was enforced. Patients were permitted to see only their nearest relatives on certain days and in a special room. Only dangerously ill patients could be visited in the ward at any time. Such rules had undergone extensive alterations in the course of time.

As it may well be expected, this segregation of leprosy patients and the severe regime to which they were subjected, were the cause of discontent among the inmates and ugly incidents were of frequent occurrence. The hospital came to be regarded as a prison, with the result that patients suffering from leprosy were driven to secrecy and concealment.

Hence, it was only natural that, with few exceptions, only those leprosy patients in an advanced stage of the disease, who were hopeless and helpless, gave themselves up or were reported by their relatives, while those in whom the disease was in the initial stages, especially those who were able-bodied and in the prime of life, went into hiding in the countryside. Moreover, once leprosy patients were compulsorily segregated in hospital, it was difficult to obtain their co-operation with regard to treatment.

In the light of increasing knowledge, an amended Leprosy Ordinance was published in 1919. Compulsory segregation still remained the law, but patients in whom the disease had been arrested could, under this new amendment, be discharged from hospital. Patients so discharged were bound to present themselves every six months for examination by the Leprosy Board, and were precluded from taking certain trades and occupations.

In order to break the monotony of their stay in the institution and render life more bearable, provisions were made for each patient to be kept fully occupied in accordance with his inclination and capacity. Thus, patients who were able to assist in the domestic service of the hospital or to perform agricultural, tailoring, or other work, were so employed in return for a small monthly gratuity.

Govenment also afforded m netary relief to the families of leprosy patients in the form of monthly subsidies. Amusements were also organised to while away the time for the inmates in the long evenings.

A further amendment to the Leprosy Ordinance of 1919 was enacted in 1929 with a view to bringing the law into line with current trends then obtaining in Europe and in other parts of the world. Under the new bill, leprosy patients presenting no contagious manifestations of the disease were permitted to receive treatment as out-patients. By this new amendment it was hoped to induce the hitherto hidden early amenable cases of leprosy to come forward for treatment. The fear of compulsory segregation, however, still loomed in the minds of the majority of the sufferers from this disease, who were terrified by the thought that should the disease become infective at some later stage, they would lose their liberty.

The final blow to segregation was dealt in 1953 when the Leprosy Ordinance was again amended, abolishing the compulsory segregation of patients affected with leprosy and this method of prevention which in Malta had proved ineffective, came to an end.

The chief aim in abolishing segregation has been to attract early cases to come forward voluntarily for treatment. Previous experience has shrown that unless fear of compulsory segregation is dispelled from the minds of persons affected, the disease will remain difficult to control, as it will continue to be driven underground. As in tuberculosis, so in leprosy, the earlier in the course of the disease the treatment is instituted, the more hopeful will be the outlook for the patient; this is especially so nowadays when encouraging results have been obtained from sulphone therapy.

Under the new Leprosy Ordinance various sections of the principal law have been repealed, but cases of leprosy still have to be notified to the sanitary authorities by the medical practitioners, and certain precautionary measures have been retained. In exceptional cases segregation may still be enforced by the competent authorities under a different enactment, i.e. the Prevention of Disease Bill, when such a course is imperative, such as for example, in the case of a patient who persistently refuses regular treatment and does not avoid spreading the infection to other persons.

The new legislation was enacted with the object of attracting early cases to come forward for treatment, but at the same time it had the effect of diminishing the number of patients undergoing treatment in hospital. In fact many of the patients availed themselves of the liberty conceded by law and left the hospital. Other

patients, however, were not in a position to ask for their discharge. Disfigurement, indifferent relatives, the absence of proper accommodation at home and above all straitened financial circumstances, will always keep a number of patients inside the hospital.

To alleviate the lot of these patients and to render their life in the hospital as pleasant as possible, immediate steps were taken to provide them with comfort and amenities. A new hospital coach has been provided and outings are being organized more frequently; facilities for regular home visits have been arranged; the tobacco allowance has been increased, and the remuneration for services rendered in the hospital has also been increased. Rediffusion sets have been provided both in the male and female divisions, and television sets are being installed. Cinema shows take place weekly and performances by local theatrical companies are given regularly. In addition generous cash allowances are granted monthly to families or dependents of leprosy patients undergoing treatment at the hospital.

Incidence and Anti-Leprosy Campaign

In 1913 when segregation was compulsory the incidence index for leprosy was 0.54 per thousand; the estimated civil population for that year being 216,617.

In 1930, the rate was 0.34 on an estimated civil population of 234,454.

In both instances the rate was based on the number of patients segregated in relation to the estimated population of the islands at that time. In the latter instance it took into account neither the number of patients who had been paroled under the amended Leprosy Ordinance of 1919, after having undergone treatment at the hospital, nor the number of leprosy cases on the official records of the Leprosy Board, who were suffering from leprosy in a non-infective stage and consequently not recommended for segregation, following the amended Leprosy Ordinance of 1929. Naturally no account could be taken of the number of patients in hiding.

The total number of registered cases of leprosy in Malta and Gozo as on December, 1956, was 144. This figure, on an estimated civil population of 314,369 gives a rate of 0.45 per thousand. In the absence of a detailed survey it is not possible to give an accurate figure of the number of cases of leprosy in these islands, but it is calculated that their number does not exceed 200, the rate per thousand being therefore approximately 0.64. All attempts to carry out a complete examination of contacts and other close relatives have in the past proved unsuccessful. The lepromatous rate is 66%

of all known cases, and the child rate in the 534 cases notified since 1920 is 3% (children under 15 years of age numbered 21).

As already stated, in order to induce patients and their contacts to come forward for treatment, generous grants have been instituted to the households of patients suffering from leprosy. Such generous grants will also help contact-families to raise their own resistance to infection by better feeding and housing.

Social assistance is given in some measure to all patients suffering from leprosy and also their dependents. However, those patients who are not undergoing treatment in the hospital must attend at regular intervals for examination and treatment at the Out-patients' Clinic to qualify for the assistance. Should they fail to attend regularly for treatment their allowance will be temporarily discontinued.

The health authorities spare no effort to encourage patients to come forward for treatment and to persuade contacts to report for periodical examination at the Clinic.

BCG vaccination is freely offered to all contacts of leprosy patients, particularly children.

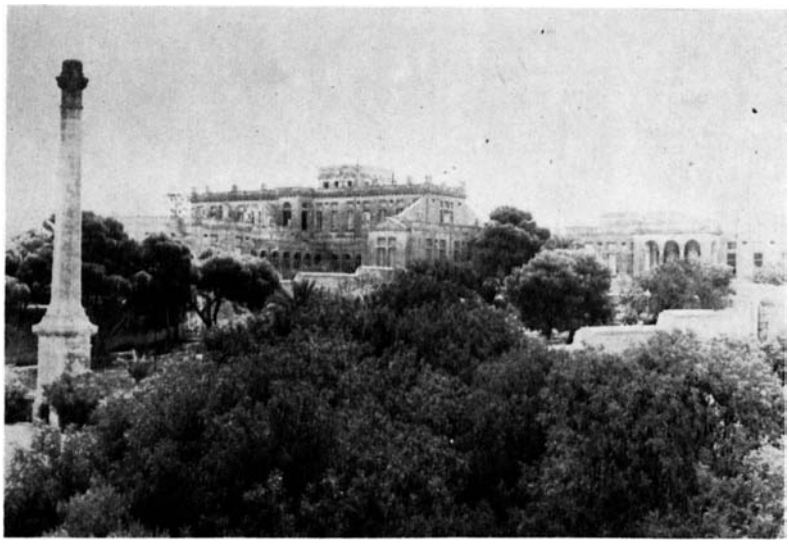
Sanitary inspectors pay frequent visits to the homes of patients living outside the hospital and give instructions and advice as to the precautions to be taken in order to prevent or minimise the danger of spreading the infection. On the suggestion of the Medical and Health Department, the Housing Department has on occasions provided suitable accommodation for families in which leprosy has occurred.

Treatment

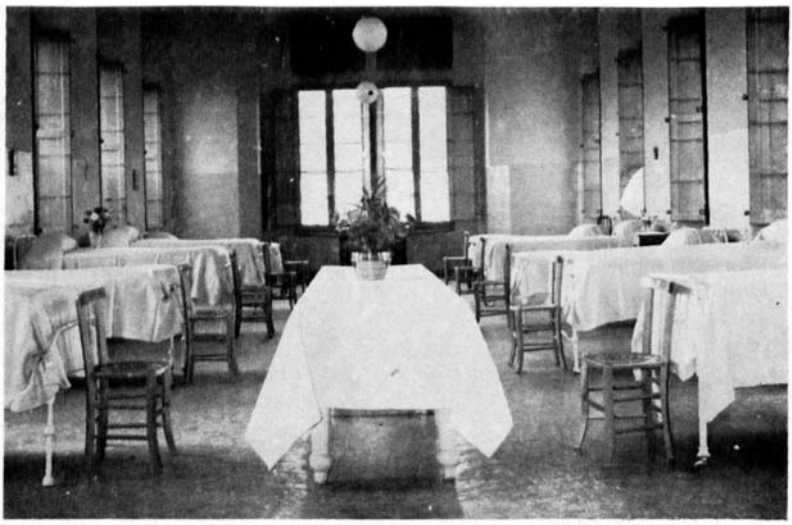
The use of chaulmoogra oil and its derivatives has long been abandoned in our hospital. Our experience is that patients did not derive much benefit from the use of these drugs, which frequently aggravated the condition of those patients suffering from the lepromatous type.

Although many different forms of treatment have been tried in our hospital, sulphone treatment in various forms has remained the standard treatment of leprosy. It is now nine years since sulphone treatment of leprosy was first introduced in our hospital, and since that time marked improvements have been noted, especially in the general health and clinical appearance of patients, the majority of whom are of the lepromatous type. Bacteriological improvement is, however, slow.

As we do not know whether the infection is ever eradicated from the patient, we continue to administer sulphone treatment



General view of St. Bartholomew's Leprosy Hospital



One of the larger wards

indefinitely, at reduced doses, even to those patients in whom the disease has been arrested.

On the whole, sulphones are well tolerated. Reactions from their use, such as erythema nodosum leproticum, mild mental derangement, etc., are occasionally met with. Such reactions subside after reduction of the dose or temporary withdrawal of the drug. Iron and yeast preparations are administered concurrently with sulphone treatment.

In common with all leprosy subjects of European descent, our patients in the past suffered extensively from eye and throat complications. Good results have been achieved from the local use of cortisone in leprotic eye complications. Leprotic blindness is now rare. Lepromatous laryngeal involvement, once so common among advanced lepromatous cases, is now extremely rare in patients undergoing treatment with sulphones. The death rate from leprosy has fallen also in recent times.

The government ophthalmologist visits the hospital at regular intervals to examine and treat the eye complications of the patients. The dermatologist pays frequent visits to the hospital in his capacity as senior leprologist. Leprosy patients who in the course of their disease develop some acute medical or surgical condition are admitted temporarily at St. Luke's General Hospital for the required treatment, and they are kept in separate wards. School medical officers are also instructed to look for the disease during their routine inspections of school children. No efforts are being spared in the teaching of young doctors how to diagnose the disease in its various phases.

Conclusion

The present trend in dealing with leprosy patients does not seem to favour compulsory segregation; this method is becoming obsolete; it has its utility as a check on the spread of disease, but it has also many drawbacks, social, ethical and administrative, and it certainly does not seem to agree with the modern outlook of thought and life. It has been ascertained that the ancient system of compulsory segregation may do more harm than good in causing the early cases to be hidden for fear of life-long imprisonment, until it is too late for effective treatment, and they have already infected members of the household. With the modern drugs and modern methods of treatment the course of the disease may be favourably modified, especially if patients seek medical advice early. Improved standards of living, better hygienic conditions, health education and adequate social services have also their beneficial effects.

BIBLIOGRAPHY

" International Congress for the Defence and Rehabilitation of the Leprous." Rome, April, 1956—Edizione Mediche e Scientifiche, Rome.

' Round the World of Leprosy," by R. V. Wardekar. Gandhi Memorial Leprosy Foundation, Wardha, N.P. India.

" Leprosy in the United States," by L. F. Badger. Trop. Dis. Bull., Vol. 53, No. 5, May, 1956. Abstract, p. 601.

" The Incidence and Epidemiology of Leprosy in Uganda," by J. A. K. Brown. Trop. Dis. Bull., Vol. 52, No. 9, Sept., 1955. Abstract, p. 903.

" Report of the Health Conditions of the Maltese Islands for the Year 19 Govt. Printing Office—Malta, 1954.