

Letters to the Editor

LEPROSY CONTROL IN THE GHARBIA GOVERNORATE OF EGYPT

Sir,

At the International Conference of Leprosy, held in Cairo, Egypt, 1–2 March 1992, Professor Wafaa Ramadan, from the Department of Dermatology and Venereology, Tanta University, described the epidemiological features of leprosy in the Gharbia Governorate over a period of 19 years (1973–91). This important presentation has stimulated us to re-examine and submit for publication a summary of data collected from a survey in the same part of Egypt many years ago. The 'Gharbia Project' as it was then called, set out to: 1, provide information on the prevalence of leprosy in selected areas of the Governorate; 2, evaluate the importance of early case detection by active, as opposed to passive methods; 3, identify the level of survey of the population which might be effective in detecting the majority of all cases, and 4, generate data which could contribute to plans for control of leprosy in Egypt. We take this opportunity to record the information gathered and to comment on the extent to which these objectives were realized.

Planning. As Director of Skin Disease Control in the Ministry of Public Health at that time, one of us (RM) developed an outline proposal and protocol, to include survey methods, staff equipment, personnel involved and a budget. The CIBA-GEIGY Company in Egypt very kindly approved the proposals and agreed to give considerable financial support, including the provision of free drug supplies equal to those purchased by the World Health Organization (WHO) for the duration of the project. Additional financial backing was received from the Le Petit Company, Caritas-Egypt and the Gharbia Ministry of Public Health.

Survey methods. We selected 3 areas: 1, an urban area around Tanta Health Centre; 2, a rural area to include 4 villages known to be endemic for leprosy; and 3, another rural area with 9 villages in which, on the basis of all previous records, very few cases had been recorded. The work was carried out by 2 mobile teams, consisting of a general practitioner and a nurse. Staff training for the project started in December 1981, with practical sessions on clinical diagnosis, classification, management, laboratory work, for both paramedical and medical staff. Some of the teaching was done locally but there were also sessions in the Abu Zaabel leprosarium, about 25 km from Cairo. Using a prepared master list of the populations concerned, together with detailed maps of the villages and houses, the team interviewed the head of each household to obtain information about general attitudes to leprosy and the presence of any patient known to have leprosy in the house, or nearby. From patients a wide range of information was collected, including attitudes and knowledge about leprosy, any history of previous treatment, marital status, income, literacy level, diet, smoking, water supply and toilet facilities. Detailed notes were also made of domestic and community cleanliness and socioeconomic conditions generally.

Results. In summary, during the period 1982–86 a total of 135,425 people were examined out of a recorded total population of 143,567 in the survey areas. We were aware of the absentees, but cooperation was extremely good throughout the period of study and it is likely that the difference in the above figures could be mainly accounted for by deaths, those who had moved to another part of Egypt or left the country. A total of 144 cases were discovered during the survey period, giving an overall prevalence of approximately 1·1 per thousand. Some of the cases gave a history of having been diagnosed and treated previously, either by the health services or in private practice, but the

majority were new, first-time presentations, often in quite an advanced stage of disease, with grade 1 or 2 deformities. Over 50% of all cases were in the age group 20–50; 40% were over 50 and there were remarkably few cases under the age of 20 (less than 7%). There were no cases in children below the age of 14 years. With regard to classification, 66.7% were borderline, 20.7% lepromatous, 9.2% tuberculoid and 3.5% indeterminate. No fewer than 76% of all patients were illiterate, with relatively higher rates in females. Many patients described progression of disease at the time of our diagnosis, but none presented in reaction of any kind. All patients with active disease were treated with multiple drug regimens, as recommended by WHO in 1982, including supervised monthly dosage and monitoring for the prescribed periods of time in pauci- and multibacillary groups. The cost of discovering a patient under these circumstances, including transport, equipment and administration worked out at 538 Egyptian pounds (approximately USA \$534 at that time) per patient.

Comments. From the outset, it was abundantly clear that on a daily basis we were working with a seriously disadvantaged section of the community. The villages were dirty and the roads of poor quality. Flies abounded in the vicinity of many houses. Modern toilet facilities were available in only 20% of the houses and a clean water supply in only 22%, many had indoor cattle and poultry sheds. As already noted above, literacy levels and education were poor and over 90% of all patients interviewed thought that leprosy is due to mere chance, unknown causes, or a variety of factors beyond their control; hardly anyone mentioned a 'germ' or infective cause. With regard to social status and acceptance by the community, it was noteworthy that the vast majority of patients, even those with advanced disease and deformity, were well accepted by the family, the neighbours and the community, apparently without any element of rejection or stigma.

As the Gharbia Project came to an end, a considerable number of patients were referred for continuing treatment and care to the local health services, or—in the case of those who could afford it—to private practitioners. Partly due to the difficulty of recruiting and training staff to pursue the work, the entire project took much longer than had been envisaged and this no doubt contributed to the difficulty of collecting and analysing results. The unexpectedly high cost in terms of each patient discovered also became a matter of mounting concern. We realize that the data presented above could be considered as 'dated' and it has also to be recognized that the study covered only a relatively small proportion of the total population of the Governorate, possibly weighted towards areas of low socioeconomic standing. Nevertheless we believe that a number of broad conclusions can be drawn: 1, socio-economic conditions, environmental and personal hygiene were at a remarkably low level in all villages and it may be significant that they were worst in 2 villages (Shendelet and Marhoum) which had the highest incidence of cases; 2, the vast majority of patients were illiterate; 3, the majority of patients were in advanced stages of disease; 4, the incidence of leprosy below age 20 was low; and 5, there was no evidence of rejection or stigma on the part of family members of the community. The findings from a project carried out in Lower Egypt in the 1980s may still have relevance for the attempts which are currently being made to proceed towards, '... a future free of leprosy in Egypt'. Surveys of the type described here are clearly time-consuming and expensive and the yield may be disappointing. In reviewing the data, our strongest impression centres on the need for a sustained programme of health education, taking into account the low literacy level in many parts of the country, so that the early signs of leprosy and the potential of multiple drug therapy are widely understood by the population at large.

Acknowledgments. We are indebted to Dr A Colin McDougall, Department of Dermatology, the Slade Hospital, Oxford, for his encouragement to present this information for publication. We would like also to thank Dr M Bakhom, the head of CIBA-GEIGY Scientific Office Egypt at that time, Dr H Tawfik head of the Medical Department of Le Petit Egypt and Dr Parisi, EMRO of the WHO Alexandria for their active role in the financial and technical support of the project.

*PO Box 469
Maady, Cairo
Egypt*

R MOHAREB,
N SALAMA, M EI-AKKAD &
S KAMEL