Anti-Leprosy Day Feature

A Survey of H.D. Control Work

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Address delivered by Prof. Michel F. Lechat, President of the International Leprosy Association, at a special meeting of the International Federation of Anti-Leprosy Associations (ILEP) working session, Brussels. This paper is being reproduced here to mark the Anti-Leprosy Day, January 30.

THE fight against Hansen's disease (HD) has three important components: Urgency, Research, Integration.

Urgency: The problem is pressing or otherwise we might lose the fight against HD.

Research: It is necessary more than ever to keep up scientific research.

Integration: HD must in the developing countries become part of the general health care.

Why is this new approach necessary? This I will review for you during the next few minutes, by putting the problem in historic perspective. The scientific history of HD begins in 1873 with the discovery of the Hansen bacterium. At that time HD was prevalent in Norway and involved about one per cent of the population, even two per cent in some coastal districts. Hansen, a physician in Bergen discovered the bacteria in the skin of patients. This proved the infectious origin of the disease and since no effective treatment existed the patients were isolated. HD has now disappeared from Norway. Some attribute this to the isolation of patients, but others believe that improvement of living conditions was the real cause. But one does not really know.

Way to Cure

The HD bacterium has not been cultured in the laboratory like most other bacteria. Prior to 1960 no animals have been successfully inoculated and therefore the efficacy of drugs could not be tested. In 1941 the American physician Faget administered sulfones to patients in Carville. The results were promising. For the first time we had a useful medication. Seventy years after the discovery of the Hansen bacillus it seemed possible to cure the disease. The sulfones were discovered in 1908 and in 1941 their activity against HD was tested for the first time. Had the drug been tried sooner millions of patients could have been saved. During this period other advances were also made. For a long time it was well konwn that the disease existed in two forms. One is the tuberculoid form which manifests itself as plaques in the skin. The other type, lepromatous, produces nodules, major deformities and the classical picture of HD. In 1936 Doull and Guinto in the Philippines compared the frequency of HD in contacts with either one of the two types and showed that only the lepromatous type is contagious. This type of the disease is seen in only a small proportion of HD patients, ten per cent in Africa and 15 per cent in India.

Common Disease

This is the picture: HD is not incurable and is not as contagious as one had thought. Ambulatory treatment has become popular. Leprosaria are disappearing, and HD is just like any other disease.

Dr. Hemeriickx in the Belgian Congo, General Richet and his collaborators in French Africa, John Lowe in Nigeria and others organized the anti-HD campaigns based on case-finding and regular treatment. This resulted in the creation of mobile units and roadside clinics of which Raoul Follereau was a passionate protagonist. This was enormously successful. It is clear that HD has not been eradicated as had been hoped. But the hope was somewhat naive. One cannot quickly eradicate HD which afflicts at times two or three per cent of the population. Recent studies have shown that it would take several decades if one wants to reduce the transmission of HD significantly. In spite of all their advantages —easy administration, low cost, low toxicity of recommended dosage, the sulfones nevertheless present great inconveniences to the patient. Their action is slow and therefore they have to be taken for a long time. It requires years to effect a cure; some patients have to take treatment for life. And it is not easy to prevent mutilations— one quarter of all patients have the well-known deformities of hands and feet.

Shepard in Atlanta found the mouse foot-pad a useful laboratory animal and used it to demonstrate the effectiveness of the sulfones in HD. The infection ceased to be contagious after a few months of treatment with the drug. But it was also found that in some patients HD bacteria were resistant to the sulfones, particularly in patients treated for a long period of time. The danger of this is that these patients continue to be contagious and thus can transmit sulfone-resistant HD.

The Risk

One might therefore soon have a grave situation. And if one does not act quickly one runs the risk of reverting to where we stood 50 years ago.

Fortunately, there are now new drugs, and the possibility of a vaccine since it has been shown (1972) that the necessary HD bacteria is obtain-

able from experimentally HD-infected armadillos. Research is therefore a priority.

The World Health Organization Special Programme for Training and Research in Tropical Diseases includes two important components: the Immunology of Leprosy (IMMLEP) project, formed in 1974, has as one of its objectives the production of an anti-HD vaccine in five to ten years; and the Therapy of Leprosy (THELEP) programme, set up in 1977 and having as an objective the development of new drugs which are more efficient and act faster. These projects, which involve many laboratories the world over, are financed by various governments, among them that of Belgium and most of the other governments represented at this meeting. They are also supported by non-governmental organizations such as the International Federation of Anti-Leprosy Associations (ILEP).

The outcome of the fight against HD over the next 25 years depends on the success of these investigations. In the meantime we must continue the fight with the means presently available. We have now in addition to the sulfones two other drugs, clofazimine and refampicin. These drugs are expensive and not always easy to obtain in the endemic countries.

In view of the problem of sulfone resistance, time seems to be against us. Provision of drugs, systems for their delivery and distribution, and regularity of treatment raise problems. The Medical Commission of ILEP assumes an important role in informing the Federation of the latest developments in these matters and in choosing the most judicious ways and means. These efforts however cannot be successful if the patients themselves and the communities do not cooperate wholeheartedly. It is important to consider the patients as part of their environment, their culture, their traditions, and their aspirations. In this the non-governmental associations, members of ILEP must play an important role.

Other Problems

We should not forget that HD is only one of many problems. Several hundred of thousands of children are hungry. Malaria, trachoma, bilharziosis, and sleeping sickness are prevalent in the developing countries. It is estimated that 100,000 children annually become blind from lack of Vitamin A and prevention of Vitamin A deficiency related blindness costs 25 cents U.S. per infant per year.

HD therefore must not be considered as an isolated problem. That would be unjust and wrong. All health efforts must be combined. The fight against HD must be integrated in the general health services. Where the HD campaigns are well organized they form at times the only health service in some areas. They can serve as a model for the development of health services. This might be what Follereau meant when he said that through HD you might cure other afflictions.

I believe that this is the justification for the present components of the fight against HD: Urgency, Research, Integration.

Social Science in Nursing Education and Research

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IN several western countries nursing profession has already joined the research movement, although even there it has yet to obtain any special privileges from academic institutions or agencies. In India too, the nursing profession is gradually moving in this direction. Historically, all over the world, development of nursing knowledge has remained inextricably linked with the growth of medical knowledge. No wonder, Wald and Leonard state that "it was the pathologists, histologists, bacteriologists and biochemists who have been basically responsible for studying the relationship between the changes in the tissues, the clinical symptoms and the effects of treatments used." The Nurses used their findings "to determine nursing procedures and nursing treatments—techniques for asepsis, treatment for bedsores, management of cardiac patients and infant feedings, to name but a few."[1] Nursing research, being very new in India, has started with description and clinical studies, using experimental, observation, and check list method.

New Avenues

Of late, nursing has started exploring new avenues for knowledge, relevant to their role performance in the fields of their interest, old as well as new. For instance, nursing has shown a new interest in developing an alliance between nursing and social sciences.[2, 3] This is welcome in view of the fact that many commonly prevalent illnesses which nurses try to prevent or help to treat have a social component, an understanding of which is highly desirable on their part. Needless to say that no conscientious nurse can deal with her patients well without adequate comprehension of their social settings. A nurse with an open mind is more likely to appreciate that becoming ill is a social process and also that social rules and roles influence patients' reactions to symptoms and responses to care.

Actually, the relevance of social science to Nursing has never been greater than today when the new role of the nurse is being evolved. Traditionally, nursing as a discipline has largely remained tied to clinical practice. But today, a greater number of nurses are showing willingness to pursue research-oriented careers. All this

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