Neuroepidemiology around the World

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N.E.	Nadir E.	Bharucha
N.	Noshir	Wadia
G.C.	Gustavo C.	Román

WFN Research Group on Neuroepidemiology, Bethesda, Md., USA

Neuroepidemiology Symposium in India

Gustavo C Román, Neuroepidemiology Branch, NINDS National Institute of Health, Bethesda, MD 20892 (USA)

The symposium was officially inaugurated on November 22, 1991 at the S.P. Jain Auditorium, Bombay Hospital Institute of Medical Sciences, Bombay, India, sponsored by the Neurological Society of India, the World Federation of Neurology Research Groups on Neuroepidemiology and Tropical Neurology, the Neuroepidemiology Branch, NINDS, National Institutes of Health, USA and the Office for Scientific Affairs of the American Embassy in New Delhi, the Council of Scientific and Industrial Research of India, the National Academy of Medical Sciences (continuing Medical Education) in India, and the Trust of the 14th World Congress of Neurology. There were about 150 participants, including 26 Indian speakers and 3 invited speakers from the USA (Dr. L. Kurland, Mayo Clinic, Rochester, Minn.; Dr. A. Hauser, Columbia University, New York, N.Y. and Dr. G.C. Roman, NEB, NINDS, NIH, Bethesda, Md.). The program included a general description of methods in neuroepidemiology with contributions from Dr. Vijay Chandra (New Delhi), Dr. P. Satishchandra (Bangalore), Dr. Romdn and Dr. Kurland. The neuroepidemio-logical information currently available in India is surprisingly rich. Descriptive neuroepi-demiological studies have been carried out in the last 8 years in urban and rural communi-

ties of India including Bengal (Dr. S.K.R. Das and Dr. T.K. Ghosh), Assam (Dr. N.C. Borah), Bihar (Dr. Prasad), New Delhi (Dr. Ba-nerji), Bombay (Dr. E.P. and Dr. N.E. Bharucha), and Karnataka (Dr. Gururaj). Some of these field studies have been carried out under trying circumstances using the WHO protocol, and were reviewed by Dr. Romdn during the meeting. Dr. Kurland outlined the importance of proper records in order to generate meaningful figures. Dr. Hauser emphasized the importance of uniform definitions in order to allow comparisons between different populations. Dr. Vaidya introduced the concept of pharmacoepidemiology and the need for patient compliance.

An overview of the problem of epilepsy in the world was given by Dr. Hauser; the overall prevalence of epilepsy in India is probably similar to that of other countries according to a comprehensive review by Dr. E.P. Bharucha. Surveys of epilepsy in rural population of Karnataka State (Dr. Gourie-Devi), New Delhi (Dr. A.K. Banerji), West Bengal (Dr. T.K. Ghosh) and Bangalore (Dr. Mani) were also presented as well as unusual variants such as hot water epilepsy (Dr. Mani) and the high frequency of pseudoseizures in the north of India. Dr. V.K Kak of Chandigarh gave the closing report on the epilepsy problem.

The second day was devoted to the problem of stroke in India. Dr. P.M. Dalai from Bombay presented the results of multicenter studies on stroke. Stroke prevalence studies have been conducted by Dr. Bansal in Rota, Dr. Sunder Rao in Vellore, and Dr. Bharucha in Bombay. Dr. Chopra from Chandigarh addressed the important problem of stroke in the young in India. The high rates of stroke in women of reproductive age appear -to be mainly the result of cortical vein thromboses in the puerperium. Differences in methodology may also account for some of the differences in prevalence rate. The remainder of the day was devoted to the problem of bacterial neurological infections (Dr. N.H. Wadia, Dr. M. Gourie-Devi and Dr. Roman). Dr. Gou-rie-Devi presented an overview of the problem in India, and in particular, the heavy toll of neurotuberculosis, leprosy, neurocysticercosis and other infections, such as Japanese B encephalitis. Dr. D.K. Dastur from Bombay presented some of the neuropathological aspects of leprosy neuritis. He noted that dermatologically cured cases of leprosy may still have organisms in nerve biopsy. Dr. Deo from Bombay discussed the prospects for an Indian leprosy vaccine; Dr. Bhagwati from Bombay noted the frequent occurrence of neurotuberculosis with a number of manifestations including tuberculomas. Dr. Chandra-mukhi from Bangalore reviewed the diagnostic aspects of neurotuberculosis and neurocysticercosis and the contribution of modern immunologic and molecular biology techniques. Dr. Prabhakar from Madras provided an update on treatment trials for tuberculosis, in particular, short therapeutic regimes. Dr. Wadia presented some aspects of the important problems of neurocysticercosis in India, in particular, as a cause of epilepsy. Dr. Jacob-John provided an update on the efforts to obtain universal coverage for poliomyelitis in India. Dr. Singhal reviewed the rare cases of HTLV-I myelopathy in India, compared with a large number of patients with Japanese B, measles encephalitis and SSPE. Dr. Roman spoke on the importance and methodology of the study of clusters and geographical isolates. Dr. Kurland reviewed epidemiological aspects of the geographic isolate of ALS-Parkinsonism-dementia in Guam. Dr. Dastur spoke on rabies and Creutzfeldt-Jakob disease. The meeting concluded with closing remarks from Dr. Wadia from Bombay who underlined the importance of neuroepidemiology for research in the tropics.

In summary, for the first time in India neuroepidemiology studies are being conducted in an effort to determine the magnitude of neurological problems in the different communities. Although most of the information has been obtained at the hospital level, efforts to extend these studies to the community level are quite promising. The elevated frequency of epilepsy from neurocysticercosis was mentioned. The problem of stroke in the young appears to be particular to the Indian population here. Among this group the cortical vein thrombosis in young women of reproductive age following delivery is also an important problem that has not been addressed. Among the infections, tuberculosis, leprosy, neurocysticercosis, complications of measles, in particular, encephalitis and SSPE, Japanese encephalitis, poliomyelitis, and rabies appear to be the most serious of the infectious disease problems involving the nervous system in India.