BOOK REVIEW

AO Lucas, HM Gilles. Short Textbook of Public Health Medicine for the Tropics, 4th edition. London: Arnold Publishers, 2003. ISBN 0340759887; 320 pages; US\$28.50

This textbook, a reference in the much neglected field of public health in the tropics, is the fourth edition of a concise introduction to the subject. As stated by the authors, this "textbook does not attempt to be a comprehensive reference manual on all aspects of public health, [but rather] provides illustrative models of the public health approach to identifying and solving health problems" in the setting of a developing country. Unfortunately, the textbook suffers from this brevity, with some critical subjects being dealt with in a very cursory fashion, such as diabetes.

The chapters are well organized, with introductory population health and epidemiology sections at the beginning, followed by several chapters on communicable diseases organized by mode of transmission, and ending with several chapters on noncommunicable diseases and public health issues, including chronic diseases, organization of health services and health economics, which are newly improved additions to the fourth edition. Although the organization of the communicable diseases chapters by primary mode of transmission is useful, there are some inaccuracies, such as the inclusion of smallpox and varicella as "infections transmitted through skin and mucous membranes" rather than respiratory. As well, the infection-control nomenclature is outdated and not well defined by the authors. The chapter on arthropod-borne infections is very good, including an

excellent and concise but thorough overview of vector-control strategies.

The noncommunicable diseases chapters suffer from a lack of evidence-based literature with respect to the determinants of health in developing countries, as mentioned by the authors. Consequently, most of the references are opinion-based World Health Organization reports rather than publications from peer-reviewed journals. The authors highlight the challenges faced with limited and unreliable data sources and offer some useful suggestions to improve data gathering using advances in information technology and tools that are unfortunately not often made available to public health practitioners.

The chapters written by guest authors on nutritional disorders, health economics and environmental health were among the best in this textbook in terms of organization, succinctness and thoroughness. It is interesting to see obesity emerging as a public health issue in developing countries, where improved standards of living and 'westernization' of the diet have occurred.

In summary, this textbook is short (as stated in its title) and is not intended to be an exhaustive resource on evidence-based information concerning public health. As such, it can best serve as a rapid introductory overview for health sciences students who may be contemplating electives in developing countries or careers in international health.

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CLINICAL VIGNETTE

A recurrent headache

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CASE PRESENTATION

A 43-year-old man presented to the emergency room in September 2004 with a two-day history of increasing headache, myalgias and low-grade fever. No family members had been ill recently and he denied having nausea or diarrhea. On examination, he was nontoxic, with a temperature of 37.5°C, pulse of 90 beats/min and blood pressure of 146/84 mmHg. Skin rashes were not present, and the neck was supple. The patient claimed that he seldom had headaches but that he had been hospitalized in England 15 years ago for viral meningitis. He remembered receiving

antibiotics at the time despite being told it was a viral meningitis. The patient underwent a computed tomography scan of the brain, which was normal, followed by a lumbar puncture. The opening pressure was not recorded, but there were $23 \times 10^6/\text{L}$ polymorphonuclear cells and $308 \times 10^6/\text{L}$ lymphocytes in the cerebrospinal fluid (CSF). The CSF protein was elevated at 1.26 g/L ($N \leq 0.45$), with a CSF glucose of 2.9 mmol/L compared with a serum value of 5.3 mmol/L. The peripheral white blood cell count was $10.5 \times 10^9/\text{L}$, with $8.0 \times 10^9/\text{L}$ neutrophils.

What diagnostic test was performed?

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DIAGNOSIS

A polymerase chain reaction (PCR) assay for herpes simplex virus (HSV) was performed using the CSF.

The patient was suspected of having benign recurrent aseptic meningitis (Mollaret's meningitis) based on the previous history of aseptic meningitis and the current CSF findings. The PCR test was performed at St Justine's Children's Hospital (Montreal, Quebec) using standard methodology (1) and was reported positive for herpes simplex type II and negative for any other herpes virus. The specimen was not tested for enterovirus. The patient did not receive any antiviral treatment and made a complete recovery in a few days. The patient denied having prior episodes of genital herpes or severe headaches since his previous admission.

DISCUSSION

Benign recurrent aseptic meningitis was first described by Mollaret (2) in 1944 and is characterized by short episodes of meningitis with CSF lymphocytosis. These episodes alternate with symptom-free periods that can last for years. Examination of the CSF early in the course of illness may reveal a characteristic mononuclear endothelial cell (Mollaret cell) (3). Symptoms are typical for meningitis and include headache, neck and back pain, myalgias and neck stiffness. Fever as high as 40°C can occur. Transient neurological deficits have been reported. There is rapid resolution, usually within three to seven days, and the patients are well until the next episode. Although various infectious agents can cause aseptic meningitis, an infectious etiology is unusual in recurrent cases. Noninfectious causes for recurrent aseptic meningitis include Behçet's syndrome, Vogt-Koyanagi-Harada syndrome, sarcoidosis, systemic lupus erythematosus, intracerebral and pineal cysts, and adverse reactions to chemicals (4).

A viral etiology of Mollaret's meningitis has long been suspected but only recently confirmed with the introduction of PCR. Since 1991, when the first positive result for HSV was obtained by PCR using CSF, a total of 77 patients (present case included) have been tested by this method (4-7). There were

68 positive results for HSV and all but three were type II. Although enterovirus testing was not performed on the CSF sample in our case, a recent series of 14 cases (5) showed only evidence of HSV infection despite extensive viral testing. The possible explanations for negative PCR cases include timing and technical performance issues as well as other probable diagnoses. Virtually all patients with Mollaret's meningitis do not have evidence of active herpes skin infection at the time of presentation; as such, the pathogenesis remains unclear. However, given the predominance of type II HSV in Mollaret's meningitis, it has been postulated that the disease is a result of reactivation of a latent herpetic infection in the sacral root ganglia. There is also a strong female predominance (57 of 77 cases). Treatment of Mollaret's meningitis is usually not necessary, but antiherpetic medication has been used to try and prevent recurrences.

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