BOOK REVIEWS

Medical history given life

VIJAYAPRASAD GOPICHANDRAN

Kalpish Ratna. *Room 000: Narratives of the Bombay plague,* New Delhi: Pan Macmillan, 2015, 512 pages, Rs. 599, ISBN: 9789382616351

Atul Gawande, Abraham Verghese, Paul Kalanithi, Siddhartha Mukherjee, all have two things in common – surgery and writing. Belonging to the same fraternity, the surgeon-writer duo Kalpana Swaminathan and Ishrat Syed (under the *nom de plume* – Kalpish Ratna) have produced an excellent book entitled *Room 000: Narratives of the Bombay plague*. I prepared myself mentally for some serious reading of a tome on medical history, but was pleasantly surprised to be turning the pages in a frenzy. Despite the weight of the hardbound copy of about 500 pages, it was a complete no-put-downer! The authors have to be commended on blending history, medicine, public health, politics, sociology, ethics and literature in the right proportions, which has resulted in a fantastic medico social drama.

History of the plague of 1896 in Bombay

The book introduces all the key players in the Bombay plague of 1896, including Accacio Viegas, the physician who identified the first case of bubonic plague in Mandvi; Nusserwanji Surveyor, the physician who isolated the plague bacillus from Dr Viegas' index patient; Waldemar Haffkine, who developed the vaccine against bubonic plague and tested it first on himself; PHC Snow, the commissioner of Bombay Municipality between 1896 and 1899; and William Sandhurst, the British politician who was the colonial governor of Bombay between 1895 and 1900. These characters come alive in the pages through the words of the authors. The helplessness of Viegas when he identifies his first plague patient and the silent resignation of Surveyor when Haffkine usurps his laboratory in Room 000 for his research give a human dimension to these famous historical characters.

The book clearly captures the socio political situation of the colonial era including the discrimination against the "*babus*" and "natives". At several points, the narrative shows the intersectionality of social problems in colonial India, including the servitude under the British and the famine conditions prevalent in those times.

Author: Department of Community Medicine. **ESIC Medical College and PGIMSR, KK** Nagar, Chennai, Tamil Nadu 600 078, INDIA – Vijayaprasad Gopichandran (vijay.gopichandran@gmail.com), Assistant Professor.

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The various milestones, the identification of the first case of plague, the isolation of the coccobacillus, the successful culture in liquid medium in the "Haffkine stalactites", the identification of the rat fleas as vectors in the transmission, and the successful "stamping out" of the plague are all captured with due excitement.

Medical narratives

Narrative-based medicine (NBM) is emerging as an important complement to evidence-based medicine. NBM helps fill the gaps in understanding patient preferences, experience and perceptions of disease and treatments. The patient and physician narratives of the plague, the pain, the suffering, the disability and the psychological damage vividly portray the human dimension of the disease. Running parallel to the facts of medical and public health achievements related to plague is a strong undercurrent of patient experiences of suffering and the care-providers' despair and helplessness. The vivid description of pain, weakness, and the sense of impending doom in the patients helps the readers relate to the suffering. These narratives will sensitise healthcare providers in training, and those in practice, to human suffering and save them from viewing disease as mere organ system pathology.

A case study in public health and epidemiology

The Bombay plague of 1896 is one of the early experiences of outbreak investigation and control in India. The authors take the readers through the steps of how the outbreak was investigated and confirmed from the identification of cases, the identification of the existence of an outbreak, isolation of the organism, and implementing control measures, to the communication of the status of the outbreak. The reader gets to know that epidemiology was an emerging field in 1896 and its methods were still nascent. The descriptions of the port quarantine mechanism, isolation of infected patients, segregation of people in camps, and focus on hygiene and sanitation are very instructive to public health practitioners. Differences in the clinical and public health approaches are evident in Haffkine, who was focused on the vaccine and cure of individual patients in the hospital, and in Hankin, the bacteriologist/naturalist who was keen on identifying the source of the plague bacteria, its spread and the social dimensions associated with its spread.

Ethical issues in outbreak situations

The book is replete with ethical issues and dilemmas. There are anecdotes of glaring violations of patient rights where

the authors describe Haffkine's attempts at curing plague in patients by experimenting with various doses of his "serum". There is a description of a prison experiment where Haffkine tested his vaccine on 154 healthy prison inmates without obtaining a proper informed consent. This would be totally unacceptable by today's standards of research ethics. Invasion into the privacy of people's homes, forcing people to undergo compulsory inspections in railways stations and ports, forced segregation of the sick and the healthy, forced quarantine are all seriously contentious issues in public health ethics. Ethical dilemmas are highlighted when the *Sarkar* (British Raj) wants to contain the disease by all possible means and the people show a lack of trust in the methods of the oppressive *Sarkar*.

A compendium of medical humanities

This book is an excellent compendium of the history of medicine, the history of public health, illness narratives, social determinants of health, medical, research, and public health ethics. For a person from a health sciences background the 500 pages of the book may seem too many, which is probably its only downside. Medical and public health students should read this book and discuss the various dimensions of the plague outbreak of Bombay in 1896. Important excerpts from the book can serve as resource materials for courses on public health, medical and public health ethics. In summary, *Room 000* is a grand drama of medicine with lessons on various aspects of healthcare for several types of health professionals!

Peeling the onion from the inside out

JOHN NOBLE JR

Margaret Whitstock, *Reducing adverse events in older patients taking newly released drugs.* Saarbrücken, Germany: Verlag/Scholar's Press, 2015, 197 pages, US $ 54.00, ISBN 978-3-639-76797-1

For those looking for a primer on how the Vioxx® debacle came about, Margaret T Whitstock's new book, *Reducing adverse events in older patients taking newly released drugs*, is a must-read (1). Reading the plain-talk narrative is like peeling away an onion's layers but from the inside out. Like a prosecuting attorney, the author meticulously presents the heap of forensic evidence showing how in the course of time the coordinated actions of industry, government, and the biomedical research community have degraded the basic rules of empirical science to produce a foreseeable and preventable tragedy.

Its chilling conclusion is that there are more such tragedies awaiting us unless patients and their physicians take steps to confront the research community and its political leadership about the privileged use of flawed and manipulated randomised controlled trials (RCT) to guide evidence-based medicine (EBM). The forensic evidence demonstrates how EBM guidelines depending on RCTs as now conducted lead physicians to make treatment decisions that increase the morbidity and mortality of older patients who have been systematically excluded from RCT participation because of their comorbidities and use of multiple medications.

Most damning is Dr Whitstock's indictment of the current US Food and Drug Administration* (FDA) approach and policy for assessing the generalisability of the RCTs on which it depended for approving the effectiveness and safety of new drugs. That policy in effect makes the older patient population guinea-pigs in the uncontrolled experiment, sometimes referred to as "pharmacovigilance," that depends on the voluntary reporting by physicians of perceived adverse effects in patients for whom they have prescribed FDA vetted and approved drugs on the assumption of their effectiveness and safety. As she points out, "drug manufacturers would prefer that risks associated with a newly approved medication are established by patients' experiences of adverse events, as this occurs at no cost to the manufacturer" (1: p 172).

Dr Whitstock's book of six chapters and 197 pages, including figures, tables and three appendices, starts out with the essentials about older patients as consumers of new drugs, as participants in RCTs of new drugs, and safety concerns when prescribed new drugs that have been approved on the basis of the RCTs from which older patients with comorbidities and poly-drug use have been systematically excluded for the sake of internal validity.

Chapter 2 covers the genesis and development of the randomised controlled trial and its epistemological foundation in epidemiology with its focused search for a pathogenic cause-and-effect relationship—an agent and a disease. The root source of confusion in the interpretation of RCTs is the "frequentist" approach to statistical inference that emphasises ritualised $p<0.05$ stochastic significance rather than the quantitative judgement of the significance of single-agent interventions from a clinical perspective.The use of surrogate end-points in the assessment of statistical significance adds to the confusion.

Chapter 3 addresses the privileging of the RCT as the "gold standard" of scientific medical evidence and underpinning of

Author: **State University of New York at Buffalo**, 408 Rio Grande Loop, Georgetown, Texas 78633-4786, USA – John Noble Jr (jhnoblejr@icloud.com), Emeritus Professor.

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