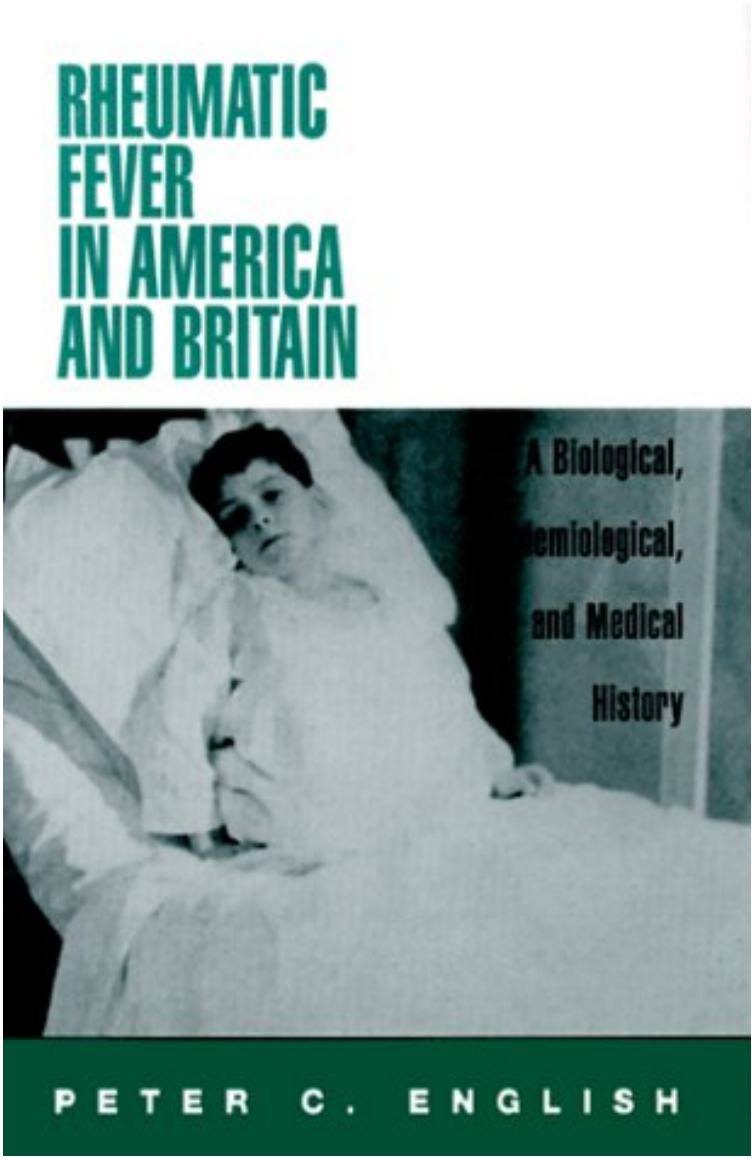
Rheumatic Fever in America and Britain: A Biological, Epidemiological, and Medical History

Peter C. English M.D.



#3930358 in Books Rutgers University Press 1999-10-01Original language:EnglishPDF # 1 .96 x 6.48 x 9.59l, 1.35 #File Name: 0813527104280 pages | File size: 49.Mb

Peter C. English M.D. : Rheumatic Fever in America and Britain: A Biological, Epidemiological, and Medical History before purchasing it in order to gage whether or not it would be worth my time, and all praised Rheumatic Fever in America and Britain: A Biological, Epidemiological, and Medical History:

Rheumatic Fever in America and Britain is the first book to examine comprehensively a disease that has been a moving target for physicians and health care workers. A disease of skin, brain, heart, connective tissue, blood, tonsils, and joints bound to a member of the streptococcus family of bacteria, this illness has practically disappeared from the present-day scene. Yet in 1940 more than one million Americans suffered from the heart disease that followed the ravages of rheumatic fever. It struck nearly 2 percent of all school-aged children, filling hospitals, convalescent homes, and special schools. Rheumatic fever rose in prevalence throughout the nineteenth century, reaching its peak in that century's last decades, and then steadily declined-both in occurrence and severity-throughout the twentieth century. In the nineteenth century, acute rheumatic fever was largely a disease of children and young adults. Another remarkable epidemiological change occurred during the twentieth century; rheumatic fever shifted its character, became milder, and in doing so allowed its victims to live longer, if disabled lives. As this disease so altered, adults increasingly became its victims. Dr. Peter C. English explores both the shifting biological nature of this disease and the experiences of physicians and patients who fought its ravages. Using insights from biology, epidemiology, and social history, Dr. English-both a physician and medical historian-is uniquely suited to unravel this disease's epidemiological and cultural complexities.

From The New England Journal of MedicineDespite the fact that acute rheumatic fever has become rare almost everywhere in the United States (except in the Salt Lake City area) and in most of the rest of the developed world, interest in this historically important and clinically fascinating disorder is great. This interest is demonstrated by the recent publication of several books on this subject and related topics. Acute rheumatic fever has bestowed a great legacy on many health care institutions. One example is the hospital at which I work, the Children's Memorial Hospital in Chicago, founded by Julia Foster Porter in 1882 after her 13-year-old son, Maurice, died of acute rheumatic fever. For decades, like similar institutions, this hospital had a large ward for patients with rheumatic fever, but the need for such facilities has almost disappeared. Peter English, the author of this most recent interpretation of the history of acute rheumatic fever in the United States and Britain, brings unique credentials to his task: he is the Josiah Charles Trent Associate Professor of the History of Medicine at Duke University as well as a primary care pediatrician. His history begins at the very end of the 18th century and encompasses all of the 19th and part of the 20th centuries, ending quite abruptly and somewhat disappointingly in 1965. English puts forth several hypotheses, which, if proved correct, would break new ground in our comprehension of this still poorly understood disorder. He posits that the biologic entity we now call acute rheumatic fever changed -- he uses the term "mutated" -- beginning around 1800, from a disorder affecting only joints ("acute articular rheumatism") to one that involved the brain and heart. This change resulted, he proposes, in the addition of the features of chorea, pericarditis, and, somewhat later, endocarditis in patients with acute rheumatism. English further suggests that another biologic change in rheumatic fever in the late 19th and early 20th centuries resulted in myocarditis -- another new manifestation, and one that often remained undetected but produced chronic debility that was evident at autopsy decades after an attack of acute rheumatic fever. These rather startling claims demand close scrutiny. To accept the concept that a complex disorder such as acute rheumatic fever has, in fact, changed biologically, one must be convinced that technological advances during the period in question did not create the illusion that the disease itself had "mutated." Such an artifact or illusion could come about from the use of new tools that revealed phenomena that were previously not apparent. If English is right, one would expect that cardiac disease compatible with rheumatic heart disease or self-limited chorea did not exist before "mutation" of the disease. If such conditions did exist, alternative causes should be apparent to explain them. The relevant technological changes of the 19th century were, of course, truly revolutionary. Laennec invented the stethoscope in 1816, and, as English acknowledges, Bouillaud used it by 1837 in examining patients with rheumatic fever. Stille indicated in 1839 that cardiac auscultation had become routine in the diagnosis of acute rheumatism. Thus, the recognition of pericardial and valvular disease was greatly facilitated by this technological innovation. Electrocardiography, first developed by Einthoven in 1903, was available routinely for clinical use by the 1920s and greatly facilitated the demonstration of rheumatic myocardial involvement in ways previously not possible in living patients. Thus, it is not at all surprising that cardiac involvement would be recognized increasingly in patients with acute rheumatism during the era encompassed by English's work, even in the absence of a change in the fundamental character of the illness. English has chosen to focus particularly on the important observations of Wells in 1810 and briefly notes that Pitcairn in 1788 and Baillie in 1797 first associated heart disease with acute rheumatism. However, as detailed nicely in the history by Benedict Massell (Rheumatic Fever and Streptococcal Infection. Cambridge, Mass.: Harvard University Press, 1997), Lancisi (1707), Vieussens (1715), and Morgagni (1761) had all earlier described autopsy features compatible with rheumatic heart disease. Morgagni observed such findings in some patients with acute rheumatism, even though the heart disease was not explicitly connected to the rheumatic illness. Similarly, Pulteney's report in 1761 of a young man with severe acute rheumatism, obliteration of the pericardial space, and marked cardiomegaly is not referred to by English. It is my view that, in the end, English does not make a convincing case to support his main hypotheses. Nevertheless, much of this book makes interesting reading, and it portrays well the sense of confusion and the conflicting "expert" opinions surrounding acute rheumatic fever through the 19th and

20th centuries. Particularly interesting is the discussion of the evolution of therapy. Relatively minor technical disappointments include the consistent failure to capitalize the "S" in Streptococcus pyogenes and the inappropriate use of streptococcus viridans (the former species name for (alpha)-hemolytic streptococci). Students of the history of group A streptococcus, rheumatic fever, and the history of medicine should find this a provocative and challenging book. Stanford T. Shulman, M.D. Copyright 2000 Massachusetts Medical Society. All rights reserved. The New England Journal of Medicine is a registered trademark of the MMS. "English has completed an outstanding feat of research, treating complex scientific and biological issues with clarity, and delineating with precision how rheumatic fever was understood in different historical periods, and how this understanding changed over time." -- Gerald N. Grob, Henry E. Sigerist Professor of the History of Medicine, Rutgers University"Few histories of infectious diseases are as historically and clinically sophisticated as this study. English teaches us how to see with the clinicians' eyes clearly and with much supporting evidence. As the twentieth century ends, we celebrate substantial gains in human health and longevity. English's exemplary study illustrates that the gains in modern medicine more typically evolved by complex, cumulative, collaborative processes of clinical investigation than by wonder drugs or the great achievements of solitary scientists." -- Ann Carmichael, professor of history, Indiana UniversityFrom the Inside FlapRheumatic Fever in America and Britain is the first book to examine comprehensively a disease that has been a moving target for physicians and health care workers. A disease of skin, brain, heart, connective tissue, blood, tonsils, and joints bound to a member of the streptococcus family of bacteria, this illness has practically disappeared from the present-day scene. Yet in 1940 more than one million Americans suffered from the heart disease that followed the ravages of rheumatic fever. It struck nearly 2 percent of all school-aged children, filling hospitals, convalescent homes, and special schools. Rheumatic fever rose in prevalence throughout the nineteenth century, reaching its peak in that century's last decades, and then steadily declined-both in occurrence and severity-throughout the twentieth century. In the nineteenth century, acute rheumatic fever was largely a disease of children and young adults. Another remarkable epidemiological change occurred during the twentieth century; rheumatic fever shifted its character, became milder, and in doing so allowed its victims to live longer, if disabled lives. As this disease so altered, adults increasingly became its victims. Dr. Peter C. English explores both the shifting biological nature of this disease and the experiences of physicians and patients who fought its ravages. Using insights from biology, epidemiology, and social history, Dr. English-both a physician and medical historian- is uniquely suited to unravel this disease's epidemiological and cultural complexities.