FOREWORD

This monograph describes the etiology, epidemiology, clinical features, therapy, diagnosis, and prophylaxis of tickborne rickettsiosis. The chapter on prophylaxis gives an account of personal prophylaxis and modern methods of extermination of tick vectors of this illness.

This book is a guide for practicing physicians but may also interest specialists in infectious diseases and therapy, pediatricians, epidemiologists, and microbiologists.

INTRODUCTION

Constant interest in public health by both the Communist Party and the Soviet Government has resulted in medical scientific achievements in the struggle against epidemic diseases. Evaluation of the state and level of scientific investigations of basic problems concerning infectious pathology demonstrates that in this respect Soviet medicine occupies a leading place in the world. The theory of natural focality of infectious diseases developed by E. N. Pavlovsky and colleagues gave impetus to studies of many earlier unknown human and animal diseases and facilitated discovery of causes of their endemic occurrence. Furthermore, it has helped to solve successfully the problems of regional pathology. A summary of specific scientific research during the past 15 to 20 years was presented at the 1954 Tashkent meeting of the U.S.S.R. Academy of Medicine.

Results from studying correlated problems of regional pathology that are significant in public health are particularly important in large-scale development of virgin and unused lands. Rapid industrial and agricultural development as well as settlement of virgin lands may lead to appearance and growth of endemic infections owing to increased direct contact between natural foci and people performing various occupations in steppes. Study of rickettsioses, illnesses with natural focality that are maintained by several factors and circulate uninterruptedly in nature, is therefore of great practical importance. The ever-growing interest in these diseases is due to their method of spread, which is attributed to tick vectors encountered from "bedsteads and clothes in living quarters to dismal areas of hot deserts, taiga thickets, spacious steppes, and depths of mountain caves" (E. N. Pavlovsky). Lice and rodent fleas as well as ticks participate in spreading typhus fevers. The participation of vectors of the order Arthropoda and the close clinical similarity between related agents attributed to the family Rickettsiaceae allows consolidation of various forms of typhus fevers within the rickettsiosis group.

Progress of Soviet medicine in recent years has considerably broadened our knowledge of human rickettsiosis. A method of correlated field zoologico-parasitological investigations in natural foci of infectious diseases, adopted and introduced in the U.S.S.R. by E. N. Pavlovsky, permitted rapid understanding of the etiology, epidemiology, clinical features, and diagnosis of recently "new" or unknown diseases. Together with historical typhus and Volhynia fever, 6 endemic rickettsioses have been revealed or rediscovered in the Soviet Union: (1) Marseille fever, (2) murine rickettsiosis, (3) rickettsialpox, (4) tickborne paroxysmal rickettsiosis, (5) North Asian tickborne rickettsiosis and (6) Q fever. P. F. Zdrodovsky proposed that the science of rickettsioses be considered a separate branch of medical science of infections, i.e. rickettsiology.

Among various endemic rickettsial infections, North Asian tickborne typhus is, next to Q fever, the commonest with respect to area and number of infected people. Natural rickettsiosis foci extend in an uninterrupted chain from the shores of the Pacific Ocean throughout Siberia to Tyumen and farther south throughout the Altai region, and include Kazakhstan and Kirgizia. A similar illness was recently described also by M. E. Kotsinyan in Armenia S.S.R. However, studies of this infection, which has been present in our country for a long time and has caused considerable yearly incidence, proceed very slowly. It suffices to mention that the long existence (more than 20 years) of North Asian tickborne rickettsiosis in Primorsk region (Iman, Vvedenka, and others) was established only in 1958 by a joint expedition initiated by the N. F. Gamaleya Institute of Microbiology and Epidemiology of the U.S.S.R. Medical Academy, under the direction of S. M. Kulagin. Close investigation of the southern Primorye Islands confirmed the existence of foci of this illness. This investigation justifies the opinion of S. M. Kulagin and P. A. Petrishcheva that the main task of public health bodies is to reveal foci and distribution of endemic rickettsial infections in various landscape-climatic zones of the U.S.S.R. Further investigations of regional pathology in our country will undoubtedly extend the territorial borders of rickettsiosis, which is assumed to occur in all central Asiatic republics and in several Transural and eastern Caucasian oblasts of the Russian Federation.

Despite the relatively wide distribution of tickborne rickettsiosis, practicing physicians are not sufficiently acquainted with this illness. This fact can be explained by its relatively recent discovery (1938) in our country and the complete lack of summary literature devoted to problems of North Asian tickborne rickettsiosis. A "Brief Data on Tickborne Typhus in Siberia," written in 1941 by Pavlovsky, Sergeyev, and Petrova-Piontkovskaya, is the only guide for medical workers, except for some articles and dissertations. A monograph "Treatise on Rickettsiae and Rickettsioses" (Zdrodovsky and Golinevich 1953, 1956) fills the gap, although it poorly represents the clinical aspect of this illness. However, clinical features of Asian tickborne rickettsiosis have been well studied. They are presented in several candidate and 2 doctoral dissertations (Savulkin, Sergeyev, Pletsity, Kulagin, Kireyeva et al.). A particularly detailed description of clinical features of the illness was given by Kulagin. Simultaneously, introduction of recent func-