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YELLOW FEVER VACCINATION

YELLOW FEVER VACCINATION

SMITHBURN · DURIEUX
KOERBER · PENNA · DICK · COURTOIS
de SOUZA MANSO · STUART
BONNEL



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INTRODUCTION

First applied in French West Africa in 1934, and then in Brazil in 1937, systematic vaccination against yellow fever has since resulted in the immunization of tens of millions of persons, and human yellow fever has become a rare disease. When vaccination was begun, however, not even the most optimistic of its advocates could have anticipated the benefits of all kinds and the enormous economic and social advantages that would accrue to those territories where the disease was rife.

The World Health Organization considered that it would be appropriate at this stage in the development of yellow fever vaccination to publish a monograph on the subject, to which would contribute eminent specialists whose names are linked with the success of yellow fever control the world over.

The first of these contributions is that of K. C. Smithburn, in which he describes the basis on which yellow fever immunization now rests.

In French West Africa and French Equatorial Africa more than 56 million vaccinations were performed between 1939 and 1953 with the scratch vaccine prepared by the Institut Pasteur at Dakar; these have resulted in a protection rate such that human yellow fever has practically disappeared from the territories in which vaccination was performed. C. Durieux, formerly Director of the Institut Pasteur at Dakar, describes the various stages in the preparation and control of the vaccine produced by that Institute, the technique used for its administration, and the system of mass vaccination applied in French African territories. Together with R. Koerber, he also discusses the immunological results obtained.

The most widely used vaccine in the rest of the world is 17D vaccine. The Oswaldo Cruz Institute at Rio de Janeiro is one of the most important establishments preparing it. H. A. Penna, who directs the Institute's yellow fever laboratory, gives details of the methods of production and administration of 17D vaccine. This vaccine, like that of the Institut Pasteur at Dakar, is used in mass vaccination campaigns; C. de Souza Manso reports on what has been accomplished with these campaigns in Latin America.

G. Courtois reports the results of numerous control experiments designed to clarify previous knowledge of the time of appearance of immunity to yellow fever after vaccination and of the duration of that immunity.

Like all vaccination, that against yellow fever has sometimes been followed by more or less serious reactions. It is necessary to know about these accidents and only proper to draw attention to them; they in no way detract from the value and efficacy of the method. G. Stuart gives a detailed and complete account of reactions observed to vaccinations with both the Dakar and the 17D vaccines.

Each method of vaccination has its advantages and its disadvantages. Vaccination with 17D vaccine by the scarification method described by G. W. A. Dick, however, would seem to combine the advantages of both Dakar and 17D vaccines without the possible disadvantages of the more usual practices of administration of either.

Vaccination against yellow fever is officially sanctioned as a preventive method by international health legislation, which allows travellers holding a valid certificate of vaccination to avoid quarantine isolation when passing from an area infected with yellow fever to an area receptive to it. P. H. Bonnel describes the international regulations governing yellow fever vaccinations and the conditions under which a valid international certificate may be issued.

The monograph also contains a bibliography of works on yellow fever immunology and vaccination.
