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RECURRENT TROPICAL LYMPHANGITIS

WITH SPECIAL REFERENCE TO STREPTOCOCCUS INFECTION

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INTRODUCTION

The group of organisms known as streptococci and the diseases produced by them have been the subject of a great deal of interest and study, particularly with regard to the geographical distribution of some conditions, such as scarlet fever and acute articular rheumatism. The incidence of acute articular rheumatism and scarlet fever is high in temperate climates; yet, the statistics we have at hand¹ show that although they exist in Puerto Rico, their incidence is tremendously lower. Hemolytic streptococci are found in Puerto Rico with frequency in ulcers, abscesses, diseased tonsils, and the streptococci isolated from these sources are indistinguishable from those isolated in temperate regions. Besides, there are conditions like recurrent tropical lymphangitis which are exceedingly common in Puerto Rico and which we have associated with the activities² of beta-hemolytic streptococci. There is a factor of interest in this disease, and that is the fact that tissues seem to be conditioned by lymphatic blockage, making them more susceptible to infection by the streptococci. Drinker³ et al found that when lymphatic drainage of a dog's hind leg becomes permanently impossible, so that with each period of activity there is no movement of fluid from the tissues to the lymphatics out of the region, then there develops a surprising susceptibility to streptococcal infection. From our clinical observation, we think that chronic lymphedema brings about changes in the tissue which allow certain organisms like streptococci to invade and colonize in them with greater ease than in normal tissue. We can offer no possible explanation for the relatively low incidence of rheumatic and scarlet fever found in Puerto Rico in contrast with our high incidence in recurrent tropical lymphangitis.

The results of Dick tests⁴ among Puerto Rican children indicate that they have definite skin susceptibility to the scarlet fever toxin. The fact that we have endemic filariasis, lymphogranuloma inguinale, and other conditions that injure the lymphatic system, making bacterial invasion easier, may explain our high incidence of recurrent lymphangitis. We have undertaken the study of recurrent tropical lymphangitis with special reference to streptococcus infection. For the purpose of this investigation careful bacteriological, immunological and clinical studies have been made of as many cases of lymphangitis as could be dealt with thoroughly. The work has been under way for three years.

The first part of this study consists of the biological characteristics of hemolytic streptococci isolated in Puerto Rico, surveys of Dick test among Puerto Rican children, immunological response of cases of recurrent lymphangitis to streptococci and their products, clinical aspects of recurrent tropical lymphangitis and attempts at treatment of this condition.

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