Conference Report

Rheumatic Fever Management

Notes on a panel discussion at the Second World Congress of Cardiology, Washington, D. C., September 14, 1954. Chairman, T. Duckett Jones, M.D., medical director of the Helen Hay Whitney Foundation, New York City (died November 22, 1954). Co-chairman, Maurice Campbell, M.D., London, England. Panel members: Edward F. Bland, M.D., Massachusetts General Hospital, Boston. Albert Dorfman, M.D., Chicago. John D. Keith, M.D., Toronto, Canada. Charles H. Rammelkamp, M.D., Cleveland, Ohio.

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IS RHEUMATIC FEVER declining in prevalence and incidence? Clinical evidence, such as the relatively rare occurrence of severe chorea, or St. Vitus' dance, suggests a decline in severity. Statistical evidence, such as the decline in cases in all age groups reported in Toronto by Dr. John D. Keith, suggests a decline in prevalence. The accompanying chart, prepared by the National Heart Institute of the Public Health Service, also suggests a decline in the number of cases and severity of rheumatic heart disease. Nevertheless, Dr. T. Duckett Jones observed that the apparent decline may result from improved environmental conditions, such as heating and nutrition, rather than from any genuine change in the organic process. He stated there has been no change in the ability to contract rheumatic fever. And he felt the decline in cases may be more apparent than real. As he put it, when successful heart surgery was announced, rheumatic cardiac cases more often sought relief and advice. He believed that a decrease in crowding in the home has reduced exposure to streptococcal infections. It was noted also that the use of antibiotics has greatly lessened the incidence and possibly the duration of recurrences.

Diagnosis

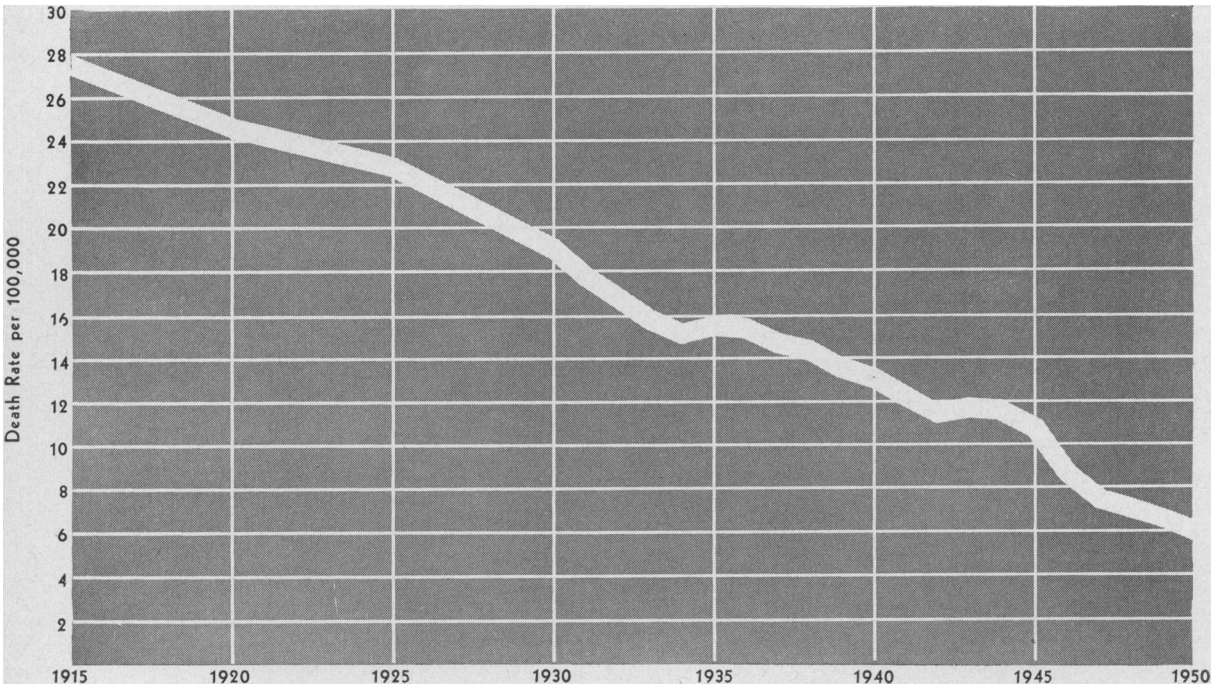
With regard to methods of diagnosing rheumatic fever, the panel agreed that no specific laboratory test is entirely satisfactory. It concluded that, although sedimentation rate tests were very helpful, accurate diagnosis still depends primarily upon direct evidence of the patient's condition and history. However, it was noted that many patients with serious rheumatic heart disease give no history of the swelling, redness, and pain of the joints which are often typical clinical symptoms. For this reason, considerable interest was expressed in the work of Dr. May Wilson, who has undertaken to determine whether fluoroscopic observation of progressive enlargement of the heart chambers may be a practical diagnostic aid. The panel seemed to agree that a thin, pinched, weary appearance in the child is a distinct clue to rheumatic fever activity.

Dr. Edward F. Bland reported that of 1,000 rheumatic fever patients observed since childhood in the past 20 years somewhat fewer than a third had died. Of these, 80 percent had died of congestive heart failure. Ten percent had died of acute or subacute bacterial endocarditis. The remainder had died of other causes, about half of which were not related to the chronic affliction. He observed also that the surviving patients had been treated successively by salicylates, sulfadiazine, and penicillin, and that many now might have their health and expectancy protected by valve surgery.

Control

Dr. Charles H. Rammelkamp asserted that when sulfadiazine or penicillin failed to prevent rheumatic fever the failure often lay with the patient's refusal to follow prescribed orders rather than with the effects of the compounds.

Heart disease (mainly rheumatic) and rheumatic fever, age-specific death rates per 100,000 persons aged 5–24, United States, 1915–50.



He asserted also that, since the average child experiences a streptococcal infection about once every 4 or 5 years, the best method of preventing rheumatic fever, a potential result of any streptococcal infection, is to eradicate the streptococci. Such eradication can be achieved by administering compounds not only to the infected child but also to other exposed members of the family. He noted that sulfadiazine used against the streptococcal infection is ineffective against a rheumatic fever attack. Penicillin is the drug of choice.

Dr. Jones commented that a statement on prophylaxis for rheumatic fever, issued by the American Heart Association, is being revised and that a new statement is forthcoming. It was advised that administration of a depositional form of penicillin about a month prior to a valve operation for rheumatic fever patients might protect against postoperative flareup of the disease.

Fundamental Studies

Immediately before the panel discussion, Dr. Lewis Thomas of Minneapolis described studies which explored the fibrinoid processes involved in rheumatic fever, lupus erythematosus, and related collagen diseases.

The process which develops from a streptococcal infection and leads to rheumatic fever and cardiac injury was the subject of a paper presented at the congress by Dr. Aaron Kellner and Dr. Theodore Robertson of New York. They observed that a proteolytic enzyme produced by many strains of group A streptococci acts as a powerful poison upon the heart. This enzyme was isolated in crystalline form by Dr. Stuart Elliott of the Rockefeller Institute.

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NOTE: *The American Heart Association's revised statement on rheumatic fever prophylaxis will appear in the April issue of Public Health Reports.*