

Fifty Years of Cortisone

In 1949, just over 50 years ago, I was a young Fellow (the first in rheumatology) at Columbia-Presbyterian Medical Center in New York. At the annual meeting of the American Rheumatism Association (ARA) that year, Philip Hench presented the seminal work on the first use of Compound E (cortisone) in rheumatoid arthritis (RA), illustrated by a before-and-after movie of a severe rheumatoid attempting to climb stairs and failing and then skipping up them the day after receiving an injection of corticosteroid. The entire audience stood and cheered as this was recognized to be a major development. Hench and Kendall (along with the Swiss, Reichstein) received the Nobel Prize. The paper presented and subsequently published bore the names of Hench and Kendall, along with Charles Slocumb and Howard Polley who had done the actual clinical work¹.

One of the important tests of a discovery is that it must stand the test of time. Although corticosteroids did not turn out to be the panacea for which everyone hoped, few can deny that they occupy an important place in medical therapeutics over 50 years from the first clinical observations. Not only that, but their introduction has led to a vast field of research in immunology, oncology, and many other fields as well as rheumatology. (The same test of time applies to the invention, by my Fellow Jacques Singer and myself, of the latex fixation test almost 50 years ago and still in widespread use today.)

While Hench and Kendall were widely recognized for their work, Slocumb and Polley were often forgotten. Howard Polley, the junior member of the team, a kind and modest man, was the last to survive and his recent death closes a chapter on a major discovery of our time. It is fitting that Ephraim Engleman, a past President of both the ARA (now the American College of Rheumatology) and of ILAR, and a powerful force in rheumatology for over 50 years, should write Polley's obituary, which follows here.

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A native of Ohio, Howard Polley did his undergraduate work at Ohio Wesleyan University, of which he was later a Life Trustee. He received his MD from Ohio State University in 1937. Following his internship and residency at St. Luke's Hospital in Chicago, Howard moved on to the Mayo Clinic in Rochester, Minnesota, where he remained for most of his life.

Starting in 1940 as a Fellow in the Mayo Graduate School of Medicine and Mayo Clinic, Howard's later appointments included Consultant in Medicine (1943),

Head of Section of Rheumatology (1960), and Professor of Medicine (1962). He was the first Chairman of the Division of Rheumatology (1966) at the Mayo Medical School, where he was later appointed Professor of Medicine (1973).

Following his retirement from the Mayo Medical School in 1983, Howard was appointed Professor of Medicine at the Indiana University School of Medicine. In 1989 he returned to Rochester, where he remained until his death.

As the junior member of the Mayo Clinic team of Philip Hench, Edward Kendall, Charles Slocumb and Howard Polley, Howard was responsible for many of the earliest clinical observations relating to treatment of RA with cortisone. Their paper describing the effects of cortisone in patients with RA was given in 1949 at the New York combined meeting of the ARA and the 7th Congress of the International League Against Rheumatism (ILAR). Its superb slides and cinema were truly dramatic. This paper was and remains a critical landmark in rheumatology. In 1951, Howard received a special citation from the ARA "for his participation in the clinical discovery of cortisone."

In 1954, Howard, with Emerson Ward, co-founded the National Society of Clinical Rheumatologists and was the Society's first President. From 1964 to 1965, Howard served as President of the ARA.

A provision of the National Arthritis Act of 1975 was the creation of the National Commission on Arthritis and Related Musculoskeletal Diseases, of which Howard Polley was a member. The Commission was instructed to study the arthritis problem in depth and to develop an Arthritis Plan with specific recommendations for action. One such recommendation referred to epidemiologic research. Dr. Polley served as Chairman of the Work Group on Epidemiology. His report, adopted by the Commission, called for determination of frequency and distribution of various types of rheumatic disease in different population groups, the identification of any associated environmental, vocational or other factors, and the establishment of high risk groups. It is to Howard's credit that so many of these epidemiologic recommendations have been implemented.

As Secretary-General of ILAR from 1981 to 1985, Howard was largely responsible for the many constructive changes in the constitution and by-laws of ILAR, thus expediting future improvement in the administrative function of ILAR.

Howard Polley was a brilliant man in his own quiet way. His modesty was such that one had to know him well in order to appreciate his talents. On the other hand, he had a

sharp sense of humor, which he used when least expected. He was a loyal, enduring friend.

Howard Polley's legacy is enormous. Indeed, he is an unsung hero of rheumatology.

Howard is survived by his daughter, Alice L. Polley, of Wellesley Hills, Massachusetts, daughter Mary Ann Polley, of Berryton, Kansas, son William Polley, of Stillwater, Minnesota, 8 grandchildren, and sister Ruth Spain of Columbus, Ohio. His wife, Georgiana, a brother, and sister preceded him in death.

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REFERENCE

1. Hench PS, Kendall EC, Slocumb CH, Polley HF. Effect of a hormone of the adrenal cortex (17 hydroxy-11 dehydrocorticosterone, compound E) and of pituitary adrenocorticotrophic hormone on rheumatoid arthritis: preliminary report. Proc Staff Meet Mayo Clin 1949;24:181-97.