George Hoyyt Whipple

VR Joshi1, VB Poojary2

George H. Whipple was born on 28th August 1878 in Ashland, New Hampshire, USA. Both his father and paternal grandfather were physicians. He lost parents in his childhood.1 Whipple’s early education was at Andover Academy. He did not have a highly successful school career, but was attracted to science and chose medicine as his career.1 On obtaining BA from the Yale University in 1900, Whipple joined Johns Hopkins University in 1901, which boasted of William Osler and William Welch on its faculty. He obtained MD in 1905.2 Whipple joined Johns Hopkins, Baltimore, as assistant in pathology to prepare himself for a career in paediatrics but got focussed on academic pathology which he pursued with single-mindedness.1 While declining his mothers advise to join private practice, he wrote “……….. as soon as a man does that (joins practice), …….. he has no time for research and teaching and begins to fossilize ……..”1 Whipple’s interest in research was evident even as a medical student. In 1902, he published a paper in Am J Physiol on the biochemical analysis of nucleoproteins.1

Whipple was with Johns Hopkins till 1914. He was appointed associate professor in 1911. In between he had spent one year as a pathologist to Ancon Hospital at Panama during the construction of Panama Canal. In 1914 he accepted the position of Professor of Research Medicine at California University Medical School, and Director of Hooper Foundation for Medical Research at the University.2 He was Dean of the school between 1920 and 1921, when he took up the position of Professor of Pathology at the School of Medicine & Dentistry at University of Rochester,2 New York.1,2 He was the founding dean of the school, a position he held till 1954.3

Whipple’s Disease

On 9th May 1907 while at Johns Hopkins, Whipple performed autopsy on a young medical missionary, who was a domicile of Istumbul, Turkey. His illness had remained undiagnosed. The patient had suffered from arthralgias, diarrhoea, weight loss, abdominal discomfort, cough, fever, hypotension, increased skin pigmentation, and anaemia. Whipple studied the case in detail. Amongst the autopsy findings he noted the presence of rod-shaped organisms in great numbers in the intestinal mucosa, and infiltration with foamy macrophages. He did not link the two findings4 though had wondered of such a possibility. Whipple called the condition intestinal lipodystrophy, a disorder of fat metabolism. He published the case. The case report was characterised by completeness, clarity and objectivity.1

Other Areas of Research

Whipple conducted research on a variety of problems, including tuberculosis, pancreatitis, iron metabolism (established the importance of iron in RBC formation), plasma proteins, metabolism of bile pigments (this got him interested in haemoglobin) and distribution and function of B12 using 60Co.2 He coined the term thalassaemia.1 Whipple’s main areas of interest however, were anaemia and physiology and pathology of liver.2 Under General William Gorgas, Whipple studied anaemia of parasitic infections of the intestinal tract, the effect of diet on anaemia and noted that the most effective diet was raw-liver. This observation stimulated George Minot and William Murphy to (successfully) try liver extract to treat pernicious anaemia. Whipple, Minot and Murphy were awarded Nobel prize in Physiology or Medicine in 1934. However all his achievements have been overshadowed by the identification of Whipple’s disease that he had described much earlier. Today, he is remembered mainly for that disease rather than for his Nobel prize winning research.

Honours

In addition to Nobel prize Whipple received many honours, honorary doctorates of many

1Director, 2Former, Research Administrator, Research Department, P. D. Hinduja National Hospital and MRC, Mahim, Mumbai, Maharashtra
American and non-American Universities; Science monthly Gold Medal and annual award (1930, along with Minot); William Gerhard Gold Medal of the Pathological Society of Philadelphia (1931). He was a trustee of the Rockfeller Foundation from 1939-1960 and subsequently, was the Emeritus trustee of the Foundation. Whipple was a superb teacher.

Whipple died on 1st February 1976 at Rochester NY, at the age of 97 years.

References

P.S. George Whipple is not to be confused with Allen Whipple who described Whipple’s triad and Whipple’s procedure. Incidentally the two were friends.