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Gastroenterology and Hepatology as Subspecialties

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Abstract

Gastroenterology grew as a subspecialty in Germany in the 19th century. In the 1880s and 1890s, Austrian and German clinics were attended by American physicians who, on returning to the U.S., founded the American Gastroenterological Association in 1897. The creation of a subspecialty board, however, had to wait until 1941. At The Mount Sinai Hospital, Dr. A.A. Berg was appointed Surgeon in 1899. His practice focused on the alimentary tract, which in 1910 became one of the four surgical specialties. In 1914, further subdivision led to the stomach and duodenum becoming additional specialties. In 1917, wards were endowed for Dr. Berg's specialty. The first Mount Sinai physician to have an interest in gastroenterology was Morris Manges, but the first to limit his practice to gastroenterology was Dr. Edward Aronson, for whom a specialist outpatient division was formed in 1913. Aronson died in 1922 and was succeeded by Dr. Burrill Crohn, who was followed in 1934 by Dr. Asher Winkelstein; all three collaborated closely with the surgeons, physiologists and biochemists. In 1958, Dr. Henry Janowitz became chief of the Division of Gastroenterology; he was succeeded in 1983 by Dr. David Sachar, who was followed in 1999 by his associate Dr. Steven Itzkowitz. In 1958 Dr. Fenton Schaffner became chief of the Division of Hepatology (now headed by Dr. Paul Berk), and in 1979 Dr. LeLeiko became chief of Pediatric Gastroenterology. **Key Words:** Gastroenterology, hepatology, history.

Germany

THE SUBSPECIALTY OF GASTROENTEROLOGY was created in Germany in the late 19th century, following the scientific advances in German clinics (1). To take the stomach as an example, Tiedemann and Gmelin measured the concentration of hydrochloric acid in 1824, the year after Prout's seminal presentation to the Royal Society, London. Muller and Schwann described pepsin in 1835, Enderlin found HCl in the stomach of a decapitated criminal in 1843, and Leube introduced the test meal in 1871 (1).

Ewald wrote the first textbook of gastroenterology in 1879, and his pupil Boas started the first gastroenterology clinic and laboratory, in Berlin, in 1886 (2). Boas called himself "special-

ist in gastrointestinal diseases" and in 1895 founded the first gastroenterological journal, *Archiv für Verdauungs-Krankheiten* (later *Gastroenterologia* and then *Digestion*). Meanwhile Ewald and Boas introduced the first fractional test meal in 1886, the year Jaworski and Gluzinski measured gastric secretion of HCl as the equivalent amount of a standardized concentration of NaOH/100 cc gastric juice used to titrate a 100 mL volume of gastric juice. In 1892, Ewald measured free and total acidity with Congo red and phenolphthalein indicators.

United States

The United States followed the German pattern (3, 4). In the 1880s and 1890s, many American physicians went to Austrian and German gastroenterological clinics and practiced this subspecialty when they returned. Moreover, many German gastroenterologists had emigrated to the United States. There were 17 founders of the American Gastroenterological Association in 1897. Einhorn was born in Poland. Hemmeter's

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parents were German and he was sent to school in Wiesbaden. Seven of the 17 learned their gastroenterology in Austria and/or Germany: Aaron, Eisner, Friedenwald, Hemmeter, Manges, and Stuckey visited Vienna; Friedenwald, Aaron, Einhorn, and Manges studied in Berlin; and Stuckey visited both Leipzig and Strasburg.

In Germany, academic physicians and clinicians, and even gastroenterologists like Leube and Ewald, opposed the efforts of Boas to detach digestive diseases from internal medicine. Unlike Einhorn and Pavlov, they refused to support Boas's journals, so that Boas was unable to convene a national conference on gastroenterology until 1914. There was similar opposition in the U.S., but the 17 physicians of 1897 did found the first national gastroenterological society in the world. A subspecialty board of gastroenterology came only in 1941. The American Gastroenterological Association formed its research group in 1956.

The first American textbooks on the stomach came in 1896 (Einhorn) and 1897 (Hemmeter). The first journal was *Transactions of the AGA* (1903–1908); *Digestive Diseases and Nutrition* appeared in 1934 and *Gastroenterology* in 1943 (1). Meanwhile, gastroenterological clinicians founded the Society for the Advancement of Gastroenterology (1932), which was renamed National Society for the Advancement of Gastroenterology in 1934, then the National Gastroenterological Association in 1938, and finally the American College of Gastroenterology in 1954 (5); its 1934 journal, *Review of Gastroenterology*, has been known as the *American Journal of Gastroenterology* since 1954.

Mount Sinai

Crohn was rarely reticent: “Without boasting, it is a fair statement to make that the profession of the country, or for that matter, the world over, look with expectation to the staff of this hospital when problems of a gastroenterological nature are up for discussion” (6). A clinically and scientifically organ-based specialty, to be successful, needs high-quality, multi-faculty components which work together. At The Mount Sinai Hospital, gastroenterology as a subspecialty actually began with Dr. A.A. Berg's appointment as surgeon in 1899 and his subsequent concentration on the alimentary tract. The first internal medicine physician to have an interest in gastroenterology was Morris Manges, one of the founders of the American Gastroenterology Association in 1897 (3). In 1910, surgery was formally divided

into four specialties, one of which covered the abdomen; this specialty was further subdivided in 1914 into stomach and duodenum. In 1917, The Wimpheimer Wards for the Surgical Treatment of Diseases of the Stomach and Intestines were endowed for A.A. Berg. A separate proctology surgical clinic began in 1936 and was directed by Dr. Sylvan Mannheim.

In 1913, through Berg's influence on the medical board, a specialist outpatient division of medical gastroenterology was formed in Mount Sinai, to be headed by Edward A. Aronson, who was the first Sinai physician to limit his practice to gastroenterology. In this division, clinicians and laboratory staff worked on biochemical problems, especially variations in gastric and pancreatic secretion in health and disease, and in response to drugs.

Thus, at the time of the First World War, Aronson had a clinic but no beds, and Berg had beds on both adult and children's wards, biochemical support from Dr. Samuel Bookman, and physiological studies by Dr. Eugene Klein. Sunday morning grand rounds began at 9.30 A.M. when Berg's team (Richard Lewisohn, Paul Aschner, A.O. Wilensky, Eugene Klein) and Aronson's team (Burrill Crohn — “sometime conformist, often belligerent,” Samuel Goldfarb “an amateur radiologist,” Samuel Weiskopf, Eddie Hollander, S. Winfield Kohn, Asher Winkelstein) met in the Reception Ward (6, 7). There they saw special follow-up patients, especially those who had been given a gastroenterostomy for duodenal ulcer and cecostomy for ulcerative colitis. At 10:30 A.M., the teams moved to Berg's wards, M and N, where with the house staff, nurses and visitors they made rounds with open discussion until lunchtime.

Aronson died young in 1922 and was succeeded by his first assistant, Burrill Crohn, even though he was in bad grace with some of the senior staff for his unorthodox work and heretical criticism of gastroenterostomy (8, 9). In 1926, Crohn was given the title associate-in-medicine and the responsibility both of an attending and of clinical research. Crohn was succeeded by Asher Winkelstein in 1934. Their careers are outlined in chapters 3–5. When Dr. Ralph Colp became an attending in the 1930s, the multidisciplinary team continued. “Attached to the service was an internist, Dr. Samuel Averbuck; a psychiatrist; a gastroenterologist, Dr. Asher Winkelstein; and a gastrointestinal physiologist, Dr. Franklin Hollander. Ward grand rounds were formal, crowded with staff and visitors. After presentation of the case by the house surgeon, demonstra-

tion of the pertinent X-rays and the surgical specimen, the case was open for discussion, which included medical, psychiatric and physiological aspects. Later these were conducted off the ward at a formal conference” (10).

Henry D. Janowitz founded the first division of gastroenterology in the Department of Medicine in 1958 and headed it until 1983. Other associated divisions were created, such as Hepatology (Fenton Schaffner, 1958) and Pediatric Gastroenterology (Neal LeLeiko, 1979). Thus, gastroenterology became one of the new separate groups of internal medicine, each of which was headed by a physician ranked as an associate attending in medicine with responsibility for an outpatient clinic and, usually, a laboratory. Today The Dr. Henry D. Janowitz Division of Gastroenterology (named in 1992), headed by Dr. Steven Itzkowitz of the Department of Medicine, has a faculty of fifty. Dr. Paul Berk's Division of Liver Diseases has three, and Pediatric Gastroenterology has five attendings.

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