CLARENCE SUMNER GREENE, SR.: THE FIRST AFRICAN-AMERICAN NEUROSURGEON

Shearwood McClelland III, M.D.

Department of Neurosurgery, University of Minnesota Medical School, Minneapolis, Minnesota

Kimbra S. Harris, B.S.

Division of Neuro-Oncology, The Methodist Hospital, Houston, Texas

Reprint requests:

Shearwood McClelland III, M.D., Department of Neurosurgery, University of Minnesota, Mayo Mail Code 96, 420 Delaware Street SE, Minneapolis, MN 55455. E-mail: mccl0285@umn.edu

Received, May 10, 2006. **Accepted,** July 29, 2006.

LARGELY BECAUSE OF the advances of the Civil Rights movement in the mid-20th century, an increasing number of African-Americans have had the opportunity to become physicians and enter the distinguished field of neurosurgery. Many have made the most of this opportunity, becoming prominent in both academics and private practice. Unfortunately, the details regarding the first African-American neurosurgeon, Clarence Sumner Greene, Sr., have remained in relative obscurity.

Born on December 26, 1901 in Washington, D.C., Dr. Greene received his M.D. from the Howard University College of Medicine with distinction in 1936. After 7 years of general surgery residency and 4 years as a professor of surgery at Howard University, he was granted the opportunity by the legendary Wilder G. Penfield to train in neuro-surgery at the world-renowned Montreal Neurological Institute from 1947 to 1949. Receiving high praise from Dr. Penfield, Dr. Greene became the first African-American certified by the American Board of Neurological Surgery on October 22, 1953. Subsequently, he was appointed as chair of neurosurgery at Howard University, where he successfully treated intracranial aneurysms, brain tumors, and herniated interverte-bral discs until his tragic death in 1957.

The diligence and perseverance of Clarence Sumner Greene, Sr., M.D., D.D.S., F.A.C.S. enabled him to overcome incredible odds to become the first African-American neurosurgeon, trained by Dr. Penfield at the Montreal Neurological Institute. A true pioneer, his achievements have opened the door for subsequent African-Americans to enhance the field of neurosurgery.

KEY WORDS: African-American neurosurgeon, American Board of Neurological Surgery, Clarence Sumner Greene Sr., Howard University College of Medicine, Montreal Neurological Institute, Wilder Penfield

| Neurosurgery 59:1325–1327, 2006 | DOI: 10.1227/01.NEU.0000245611.09356.6D | www.neurosurgery-online.com |
|---------------------------------|---|-----------------------------|
|---------------------------------|---|-----------------------------|

ne of the many consequences of the social integration encouraged by the Civil Rights movement in the mid-20th century has been the increasing number of African-Americans who have had the opportunity to become physicians and subsequently enter the distinguished field of neurosurgery. Many have made the most of this opportunity, becoming prominent in both academics and private practice. Unfortunately, the details regarding the first African-American to be board-certified in neurosurgery have remained in relative obscurity. To address this problem, we detail the life, training, and career of the first African-American neurosurgeon, Clarence Sumner Greene, Sr. Information was gathered from a comprehensive review of pertinent modern and historical records spanning the past century, both in print and in electronic form.

BIOGRAPHY

Clarence Sumner Greene, Sr., M.D., D.D.S., F.A.C.S., (Fig. 1) was born on December 26, 1901 in Washington, D.C. (5).

During his childhood, he spent a great deal of time with his aunt, Helen G. Curtis, whose husband, Dr. Arthur C. Curtis, was the son of a leading medical figure, Dr. Austin M. Curtis. Consequently, the presence of the Curtis family strongly influenced Dr. Greene toward medicine during his adolescence (4). Dr. Greene graduated from Dunbar High School in 1920, having been a four-letter athlete in baseball, basketball, football, and track and field (5).

After high school, Dr. Greene pursued dentistry, becoming one of the first African-Americans to receive the D.D.S. degree when he graduated from the University of Pennsylvania in 1926. However, after a year of dental practice, he decided that dentistry did not adequately fulfill him, and, therefore, sought premedical education at Harvard College from 1927 to 1929. In 1932, he returned to the University of Pennsylvania to complete the requirements for an A.B. degree and was accepted into the Howard University College of Medicine that same year (4, 5).

During his time at Howard University, he was an exceptional student and was elected to the Kappa Pi Honorary Medical



FIGURE 1. Clarence Summer Greene, Sr., M.D., D.D.S., F.A.C.S.—the first African-American neurosurgeon. Photograph taken at Freedman's Hospital in Washington, D.C.

Society, an award granted to the top 10% of Howard University's medical school class. Receiving his M.D. from Howard in 1936, he went on to complete a 1-year surgical internship at the Cleveland City Hospital. He subsequently served in a surgical residency under Dr. John P. Turner at the Douglass Hospital in Philadelphia until 1939, was an assistant surgery resident at Freedmen's Hospital in Washington, D.C. under Dr. Edward L. Howes until 1941, and finished residency the following year as the legendary Dr. Charles L. Drew's first chief resident, during which time he contributed to the surgical literature on prostatectomy (5, 11, 12, 14, 15).

While in Washington, D.C., Dr. Greene was appointed at Howard University School of Medicine, first as a physiology instructor, and later as an anatomy fellow and instructor in surgery. In 1943, he was appointed full-time as an assistant professor of surgery at Howard University, where he remained until, in 1947, the legendary Dr. Wilder G. Penfield granted him the opportunity to serve a 2-year residency in neurosurgery at the world-renowned Montreal Neurological Institute of McGill University (5, 7–9, 12). During his time in Montreal, he was highly regarded by Dr. Penfield, as witnessed in the following letter written by Dr. Penfield to the American Board of Neurological Surgery (5):

"Dr. Greene worked in our laboratory on neuropathology and did excellent work, and when he was on service his performance was first class. His attitude toward the profession is everything that you would have it; he is ethical, likeable and upright . . . he is a serious student of neurosurgery and a good surgeon and kindly with his patients." — Written communication, American Board of Neurological Surgery, September 4, 1985.

On July 1, 1949, Dr. Greene returned to Howard University as an assistant professor to become chief of the newly established Division of Neurosurgery (2, 12). He quickly transformed the state of neurosurgical care at Freedman's Hospital, which had previously been managed by general surgeons with the aid of outside consultants. Dr. Greene performed the first craniotomies for intracranial aneurysms and brain tumors at Freedman's hospital, surgery for herniated intervertebral discs and sympathectomies for hypertension, and initiated the surgical approach to stroke (5, 12). He also made diagnostic procedures, such as cerebral angiograms and air contrasts, routine, and made contributions to the general surgery and neurosurgery literature in peer-reviewed journals (1, 3, 6, 10). On October 22, 1953, he became the first African-American to be certified as a diplomat of the American Board of Neurological Surgeons. During 1953, he was also promoted to associate professor, and, on July 1, 1955, was appointed the eighth head of the Department of Surgery (12, 13). He was promoted to professor 1 year later.

Dr. Greene's other accolades include becoming a diplomat of the National Board of Medical Examiners in 1938, and, in 1943, becoming only the eighth African-American (and the first from Howard University) to be certified by the American Board of Surgery (Certificate number 1110). He was also a fellow of the American College of Surgeons and a member of the National Medical Association, the Charles R. Drew Society, the Medical Society of the District of Columbia, and the Medico-Chirurgical Society of the District of Columbia. In 1945, he married Evelyn Gardner, with whom he had two children, Carla and Clarence Jr. Clarence Jr. is presently an attending pediatric neurosurgeon at Children's Mercy Hospital in Kansas City, Missouri.

Unfortunately, Dr. Greene served as the head of surgery for only 2 years before his death from a myocardial infarction on October 9, 1957 (5). During this short time, he instituted a postoperative intensive care unit that was named after him when it opened in January 1958, took steps to affiliate Howard University's surgical residency with the Norfolk Community Hospital to increase resident operative experience, and established a grading system that unified teaching within the divisions of the Department of Surgery (13). After his death, he was succeeded as Chief of Neurosurgery by his first and only resident, Dr. Jesse B. Barber (2). Dr. Burke Syphax, who succeeded him as chair of Surgery, considered Dr. Greene one of the most honest and fair men he had ever been privileged to know (4, 13). Dr. Greene died at the age of 55 years, leaving behind the indelible mark of a trailblazer and a legacy for subsequent African-American neurosurgeons.

CONCLUSION

The diligence and perseverance of Clarence Sumner Greene, Sr., M.D., D.D.S., F.A.C.S., enabled him to overcome incredible odds to become one of the first African-American dentists and one of the first African-American general surgeons. Having received his neurosurgical training from Dr. Penfield at the Montreal Neurological Institute, he was certified by the American Board of Neurological Surgery in 1953, becoming the first African-American neurosurgeon. A true pioneer, his achievements opened the door for subsequent African-Americans to enhance the field of neurosurgery.

REFERENCES

- Balkissoon B, Johnson JB, Barber JB, Greene CS: Cerebral arteriography: Diagnostic value in cerebrovascular disease. J Am Med Assoc 169:676–682, 1959.
- Barber JB Jr: The Howard Division of Neurosurgery. J Natl Med Assoc 59:477–479, 1967.
- 3. Barber JB, Greene CS: Cerebral arteriography in the diagnosis of unilateral exophthalmos: Report of three cases. J Natl Med Assoc 48:10–16, 1956.
- 4. Cobb WM: Clarence Sumner Greene, M.D. J Natl Med Assoc 60:253–254, 1968.
- Cobb WM, Epps CH Jr, Kosiba MM: Certification pioneers, in Organ CH Jr, Kosiba MM (eds): A Century of Black Surgeons: The U.S. Experience. Oklahoma, Transcript Press, 1987, vol 2, pp 483–528.
- Cutter F, Clark HM, Scott RB, Greene CS: Studies in sickle cell anemia. IX. Preliminary evaluation of psychologic aspects. Med Ann Dist Columbia 25:17–22, 1956.
- Feindel W: Wilder Penfield (1891–1976): A protagonist for functional neurosurgery. Appl Neurophysiol 50:347–354, 1987.
- Feindel W: Neurosurgery at the Montreal Neurological Institute and McGill University Hospitals. Neurosurgery 39:830–839, 1996.
- Feindel W: Harvey Cushing's Canadian connections. Neurosurgery 52:198–208, 2003.
- Johnson JB, Greene CS, Jordan A, Fairley AI, Carter CP: Intractable heart failure; Influence of hypertension. Med Ann Dist Columbia 24:345–350, 1955.
- Jones RF, Greene CS: One stage suprapubic prostatectomy: Fifty-one consecutive cases of 1939 and 1940. J Natl Med Assoc 34:188–194, 1942.
- Leffall LD Jr, Syphax BM: The Howard University department of surgery and Freedmen's hospital, in Organ CH Jr, Kosiba MM (eds): A Century of Black Surgeons: The U.S. Experience. Norman, Transcript Press, 1987, vol 1, pp 1–62.
- 13. Syphax B: The Howard Department of Surgery. J Natl Med Assoc 59:441-446, 1967.
- Tollett CA: Frederick D. Stubbs, M.D., in Organ CH Jr, Kosiba MM (eds): *A Century of Black Surgeons: The U.S. Experience*. Norman, Transcript Press, 1987, vol 2, pp 529–558.
- Yancey AG: The life of Charles R. Drew, M.D., in Organ CH Jr, Kosiba MM (eds): A Century of Black Surgeons: The U.S. Experience. Norman, Transcript Press, 1987, vol 1, pp 63–102.

Acknowledgments

We thank Doris Sherer and Dr. Clarence S. Greene, Jr., M.D., for their invaluable assistance. None of the authors received financial support in conjunction with the generation of this article.

COMMENTS

This article is a very important historical piece. The authors provide the details regarding the first African-American neurosurgeon,

Clarence S. Greene, Sr. Thanks to the pioneering efforts of Dr. Greene and the progress in American society, an increasing number of African-Americans, including myself, have had the opportunity to become physicians and enter the distinguished field of neurosurgery. Many have made the most of this opportunity, becoming prominent in both academics and private practice and, hopefully, have justified Dr. Greene's struggle and that of other pioneers.

Nelson M. Oyesiku Atlanta, Georgia

 ${f S}$ o well written a biographical note leaves the reader wishing it were Slonger. Dr. Clarence S. Greene had the good fortune to be exposed early in life to the formative influence of a medical life through contact with his aunt who was married to a prominent physician, who was also the son of a physician recognized as a "leading medical figure." In this milieu, it is not surprising that Clarence Greene took on an interest in medicine early. One can see in his character that he had the competitive spirit and perseverance to succeed. This was clearly evidenced in his athletic achievements in high school. He earned letters in four sports: football, basketball, baseball, and track. His training included 2 years of residency in Montreal with Wilder Penfield, who recommended him highly. From there, he went into academic practices at Howard University School of Medicine, where he served for 4 years as Professor of Surgery, achieved after his 7 years of residency in general surgery. Upon his return to Howard University, he held the chair of neurosurgery and became the first African-American to be certified by the American Board of Neurological Surgery on October 22, 1953. His biographers clearly establish him as the role model not only for African-Americans, but for all aspirants in the field of neurosurgery.

> Lycurgus M. Davey New Haven, Connecticut

read with great interest this biography of Clarence Sumner Greene, Sr., recognized here as the first African-American neurosurgeon. It is clear from reading this biography that he was not only the first African-American neurosurgeon, but was, above all, a superb and highly respected neurosurgeon. The biography brings together some of the educational background, giving a feeling for what it took to make this singular achievement. Even more important, Greene took a superb education and made an effort to continue to educate young surgeons in the field of neurosurgery. Penfield obviously had great respect for both Greene's surgical skills and his ability to care for patients. This is clear from the letter he wrote to the Neurosurgery board. The sad tragedy is that Greene died so early, as it would have been most interesting to see what further contributions he might have made if he had lived longer. My compliments to the authors for bringing this most interesting individual back to life for the readers of *Neurosurgery*.

> James T. Goodrich Bronx, New York



NEUROSURGERY

Michael L.J. Apuzzo, Editor 1420 San Pablo Street, PMB A-106 Los Angeles, CA 90033 Phone: 323/442-3001 Fax: 323/442-3002 Email: neurosurgery-journal@hsc.usc.edu Website: www.neurosurgery-online.com