

Brown Urology: A Historical Perspective

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ABSTRACT

The first Urology Residency Program in the United States was founded at the Johns Hopkins Hospital in the wake of the first structured surgery residency as established by Dr. William Halsted in the early 20th Century.¹ Dr. Hugh Hampton Young was selected to lead the Genitourinary Division and the foundation for the first urology residency training program was established.² The Brown University Medical School, initially opened in 1811, effectively closed circa 1827, and re-established in the 1970s, has a long tradition in training surgeons.^{3,4} The Rhode Island Hospital Urology Residency Training Program was organized in the early 1950s and will be explored in this article. Brown University affiliated with the residency program in the mid-1980s to establish the first and only academic urology residency program in Rhode Island. Today, this program provides state-of-the-art urologic care for thousands of patients in the state.

KEYWORDS: urology, Warren Alpert Medical School, Brown University, Rhode Island Hospital, residency, history

INTRODUCTION

Formal surgical training in the state of Rhode Island dates back to 1811 when “The Medical Department of Brown University” was established as the third medical school in New England.³ Pioneering surgeons providing education through the medical school at this time included Dr. Solomon Drowne, Dr. William Ingalls, and Dr. Usher Parsons. Unfortunately, the medical school was disbanded in 1827, reasons unclear, but may have been related to grave robbing to secure anatomic specimens and concerns surrounding student discipline. One apparent sentinel event involved a partially prepared skeleton inside of a barrel that was kicked by students down College Street, eventually spilling its contents onto the road. President Francis Wayland, having recently taken over as Brown University’s fourth president, devised a new policy to improve student conduct that required all students and faculty to reside on campus. This was not acceptable to the medical instructors – and very likely contributed to the closure of the medical school. In an attempt to improve healthcare availability to those residing in Rhode Island, Dr.

Parsons was instrumental in the founding of Rhode Island Hospital (RIH) in 1863, largely funded by a significant donation from Thomas Poynton Ives. A 2-year surgical internship was initially established in 1893. This would continue to evolve as structured surgical residency programs emulating that which was conceived by Halsted gained traction throughout the United States in the early 20th Century.⁴

Following World War II, training programs in surgical subspecialties such as plastic and reconstructive surgery and urology were introduced to Rhode Island Hospital.⁴ The Urology Residency program was approved by RIH in 1954 as a two-year hospital-based training program without academic affiliation. The residency program as established was (and remains) the only residency program training urological surgeons in the state of Rhode Island. The medical school was formally re-established in the early 1970s, graduating its first class of medical doctors (MDs) in 1975. Soon thereafter the urology residency program affiliated with Brown.⁴ This article will explore the leaders, milestones, contributions, and accomplishments of the Brown University/Rhode Island Hospital Urology Residency Training Program. Historical references and information were obtained through review of available literature and discussions with those who directly influenced program/practice development from conception to the present day.

DEPARTMENTAL LEADERSHIP

Dr. Howard K. Turner served as the first Chief of Urology in the early 1950s, just as the residency program was formally established. Dr. Ernest K. Landsteiner took over as Chief in 1955, shortly after the start of the residency program. At this time the residency program was expanded to three years of formal urological instruction. Of note and clinical interest, Dr. Landsteiner’s father, Dr. Karl Landsteiner, was awarded The Nobel Prize in Physiology or Medicine in 1930 “for his discovery of human blood groups.” Dr. E. Landsteiner published an article in the *Rhode Island Medical Journal* in October 1960 entitled “Urological Causes of Back Pain.”⁵

Dr. John B. Lawlor was appointed Chair of the Department in 1976. Following the re-establishment of the Brown University School of Medicine (then called Program in Medicine) and thus the commencement of a strong academic affiliation, the residency program expanded to cover

additional hospitals including the Providence VA Medical Center, which had been established following World War II in 1948, and Roger Williams Hospital.⁶ The clinical affiliation with the Providence VA remains today; however, urological residents no longer train at Roger Williams. Dr. John F. Maynard was appointed acting Chief of Urology, approximately 1983–1985.

Dr. Barry Stein was recruited from Temple University Medical School and appointed Chief of Urology on April 1, 1985. He was responsible for, among many notable accomplishments, the recruitment of an invigorating and impactful faculty including Drs. Anthony Caldamone, August Zabbo, and Mark Sigman. Dr. Stein is widely published and made scholarly contributions including collaboration on the initial United States multicenter randomized control trial for a novel surgical approach for benign prostatic hyperplasia, visual laser ablation of the prostate (VLAP).⁷ Dr. Caldamone was recruited to Brown and would soon be appointed Chief of Pediatric Urology following completion of his urology residency at Strong Memorial Hospital in Rochester, New York, Pediatric Urology Fellowship at Children's Hospital of Philadelphia, and experience as consultant at The Hospital for Sick Children (now Great Ormond Street Hospital) in London. He would serve as the residency Program Director for 26 years, from 1990–2016. Dr. Caldamone was a member of the charter class of the Brown University School of Medicine, graduating in 1975. Dr. Mark Sigman, having completed his urology residency at University Hospital of Virginia and Male Reproductive Medicine and Surgery Fellowship at Baylor College of Medicine, succeeded Dr. Stein as Chief of Urology in 2009. Dr. Sigman coordinated the founding of the Men's Health Center at The Miriam Hospital and is currently the Co-Director. Dr. Simone Thavaseelan, who completed her urology residency and Endourology Fellowship at Brown, was named Residency Program Director in 2017.

MILESTONES AND ACCOMPLISHMENTS

The urologists of Brown Urology have made many notable contributions to the field of Urology at large, but more specifically, to urological care for patients of Rhode Island and southern New England. Over the years the Brown faculty were among the first to introduce some of the most novel surgical techniques to the region. Drs. Barry Stein and August Zabbo introduced extracorporeal shock wave lithotripsy (ESWL) for management of nephrolithiasis to Rhode Island Hospital in 1987. One of the first retroperitoneal laparoscopic surgeries performed in the United States, a nephrectomy, was completed by Dr. Stein and Dr. David Hoening, a urological resident at the time, in the early 1990s. Dr. Zabbo has been credited with performing the first percutaneous nephrolithotomy in Rhode Island, a procedure where renal calculi are accessed and removed through direct

percutaneous kidney access, also in the early 1990s. This surgical technique, conceived, implemented, and further developed the mid-1970s by Drs. Fernström and Johansson of Stockholm, Sweden, and Dr. Wickham at St. Paul's Hospital in London, has become a standard procedure in the armamentarium of endourologists throughout the world.^{8,9} In 2006 Dr. Gyan Pareek performed one of the first robot-assisted surgeries in the New England region with the novel da Vinci Surgical System. This approach has since become the standard of care for such operations as radical prostatectomy. Dr. Liza Aguiar, Pediatric Urology, is credited with performing the first pediatric robot-assisted surgery in Rhode Island in 2015. The first robot-assisted radical cystectomy in southern New England was performed by Dr. Dragan Golijanin, Urologic Oncology, in 2016.

The Rhode Island Hospital General Urology Clinic was established as a resident-driven clinical experience that provides urologists-in-training significant opportunity to coordinate outpatient care for urological patients under the direct supervision of an attending urologist. The Urology Clinic is crucial to resident professional development and provides a strong foundation for future practice as well as access to evidence-based urological care to thousands of patients from Rhode Island and surrounding regions, who otherwise would have difficulty obtaining urologic care. A particular emphasis is placed on follow-up after major urological trauma, as the clinic is located at Rhode Island Hospital, the only Level I Trauma Center in Rhode Island. Historically, multiple faculty members rotated through this position. Dr. Alan Podis took over as the first full-time Clinic Director in 1997, guiding residents through patient management and decision-making in the pre-operative, intra-operative, and post-operative phases of care. Dr. Kennon Miller, a subspecialist in Reconstructive Urology, has served in this capacity since 2015.

The Professorship and Chair of Urology was endowed in 2003 as a direct result of a generous donation from the Krishnamurthi Family. Notable milestones within the practice and program include the establishment of, in 2008, the Men's Health Center at The Miriam Hospital — one of the first multi-disciplinary men's sexual health centers in the USA. The integrated Kidney Stone Center was established in 2013, providing multidisciplinary patient-centered care through collaboration of specialists within Urology, Nephrology, and Nutrition all in one patient encounter. The Genitourinary Multidisciplinary Clinic provides for a comprehensive and multifaceted cancer management strategy — patients are guided through their management plan in coordination with specialists from multiple disciplines including Urologic Oncology, Medical Oncology, and Radiation Oncology. These subspecialists meet weekly to review complex genitourinary oncology cases in-depth and in coordination with the Departments of Pathology and Radiology. The Minimally Invasive Urology Institute, established in

2014, provides for collaboration amongst healthcare providers in various roles in an effort to optimize urologic disease management through minimally invasive and robotic approaches.

CONCLUSIONS

The residency training programs affiliated with Brown University are an integral aspect of medical care throughout the state of Rhode Island. The Urology Residency Training Program, initially a non-University-affiliated institution associated with Rhode Island Hospital, has evolved over the years to become a nationally recognized academic residency program having affiliated with The Warren Alpert Medical School. Robust exclusive hospital affiliations presently include Rhode Island Hospital, The Miriam Hospital, Hasbro Children's Hospital, the Providence Veterans Affairs Medical Center, and Women & Infants Hospital. The Miriam Hospital, just recognized as the #1 ranked hospital in Rhode Island, was also recognized among the top 2% for urologic care in the USA (27 of 1495 hospitals) by US News Health.¹⁰ Brown Urology is the largest urologic practice in Rhode Island and supports the state's only Urology Residency Training Program, providing urologic care for thousands of patients. Its storied history and continued evolution position the residency program and practice well to continue to provide state-of-the-art care for patients and exceptional training for budding urologists.

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Disclaimer

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