# Arthur Cohen "Musings on my life, with major emphasis on entry to renal pathology" (2015)

How I entered into in renal pathology is rather difficult to explain briefly because my goal in medicine had nothing to do with pathology and, therefore, with renal pathology. My main interest was in clinical medicine and, after graduating from State University of New York at Buffalo School of Medicine, I began a medical internship at the University Hospitals in Buffalo. This included four months of pediatrics.

My subsequent future was determined by the United States government in the form of the Navy. As I graduated from medical school in 1967 during the Vietnam War, it was necessary for virtually all physicians to arrange to enter government service, most commonly the military, after completion of an internship unless other arrangements had been made. Those destined to serve in the military usually became part of a program established to match the needs of the military with the desires of the individual. This program was known as the Berry Plan, named after the physician who conceived it. It was designed to allow the physician to select a time to enter the service (immediately after internship, following deferment for another year to begin a residency, or following deferment to start and complete a residency) and to select a branch of the service (Army, Navy, Air Force); each of these options were correlated with the needs of the military. If no definitive plans were made, the individual was eligible for the draft at any time. I should also mention, as many of you may be aware, that military service was the way the vast majority of young physicians served the government, although a small number of openings were available in the public health service, which included medical service to Indian reservations, sea ports, and the National Institutes of Health. In any event, I had elected to join the Navy. My choices were therefore 1) to enter military service as a general medical officer immediately upon completion of an internship, 2) request a year's further deferment in any field of medicine and then enter the military as a general medical officer, or 3) request a complete deferment of whatever number of years necessary to complete the chosen residency. This last choice, of course, required that the young physician know exactly what he wanted to be when he grew up and for me that was not certain because I was unsure of whether I wanted to pursue medicine or pediatrics. As that was the case and because I did not want to enter the military immediately upon completion of my internship, I elected a one-year deferment. The military did not particularly care what I did with that year from an educational point of view. I mistakenly thought that if I really wanted pediatrics, then the year of medicine might not be useful and, on the other hand, if I really wanted to pursue medicine, then the year of pediatrics might not be useful. Therefore I requested one year to be spent as a resident in pathology thinking that pathology was the basic language of medicine and, whatever I ultimately did, it would not be a wasted year. The year was spent at Mount Sinai Hospital in New York, with the full understanding that I would enter the Navy as a general medical officer after the academic year. Indeed, in March, I learned that in July I was to report to Buford Naval Hospital in South Carolina (Parris Island). However, at the end of May, the Navy appreciated that too many general medical officers were scheduled to begin service in July 1969. Consequently, many individuals in the same category as I with a year's residency in the specialty of our choosing were asked to choose between A) entering the military as planned after the one-year deferment or B) being deferred for the rest of one's residency (another three years for pathology) and then entering the military as a fully qualified specialist, in my case a pathologist. While I had no interest in pathology, before I could make a

selection, it became apparent that the Navy had no intention of honoring the first choice. All in the same position as I were required to remain in the specialty residency or be eligible for the draft. Thus I continued in pathology. This was no easy task for two reasons. First, I really did not want pathology and second, at the end of May when this information became apparent, I already had made no plans to continue my residency or to continue living in the Mount Sinai house staff apartment building with my wife Susan and now two children. However, a position was created for me to remain in pathology for the second year as an educational fellow and another apartment became available, so I continued my residency. During that year Susan and I decided it would be nice to spend the next two years on the West Coast and then ultimately return to the East. I obtained a position at Harbor General Hospital (now Harbor-UCLA Medical Center) in Torrance, California as a third-year resident, fully expecting that at the end of my fourth year I would be in the Navy.

During the third year, I completed a three-month elective in electron microscopy (EM), with no real goal other than to learn about the instrument. The director of the EM laboratory was Luciano Zamboni, primarily a researcher who had a major interest in ultrastructure of kidney development and anatomy. Thus, I was introduced to a serious consideration of renal structure. I continued learning normal and abnormal renal ultrastructure during the remainder of my residency, which ended in June 1972, at which time I was to enter the Navy. However, in April of that year, the Navy became an all-volunteer service. As part of the process that "forced" me and others into the same position (remaining in the residency instead of entering the Navy, which may not have been ideal), we were placed in a category in which active service was not mandatory. Therefore, as I did not volunteer to serve, I was placed in a reserve category. This being the end of the academic year, I had made no plans for gainful employment and was lucky to secure a junior faculty position at Harbor and the UCLA School of Medicine for the next year or two.

During that time I became more interested in ultrastructural pathology, especially as it applied to renal diseases. I also appreciated that renal pathology was an extremely interesting and challenging area. At the time, Richard Glassock was chief of the Division of Nephrology at Harbor; he was and still is extremely knowledgeable in the vast field of nephrology in addition to many aspects of renal pathology. Over the course of the next few years, with my mentors Luciano Zamboni in morphology and Dick Glassock in clinical nephrology, pathology and clinical-pathology correlations, I was well schooled in renal pathology. This was in conjunction with Heptinstall's Pathology of the Kidney (First Edition) and two Short Courses in renal pathology at the International Academy of Pathology, US-Canadian Division Annual Meeting (now the United States and Canadian Academy of Pathology or USCAP). Each had two instructors; while I do not remember the specifics of the course instruction, the instructors were Jacob Churg, Conrad Pirani, Robert Heptinstall and Ben Spargo. Needless to say, my renal pathology education to that point was provided by the masters.

The clinical use of renal biopsies, especially in academic centers, was reasonably well established at that time and was becoming more popular in community hospitals. As nephrology fellows left their training, they wanted to do biopsies themselves in the community setting rather than send their patients to the academic centers. However, they asked that the specimen be evaluated by a pathologist in their training institution. Although a small number of community renal biopsies had previously been sent to Harbor, there was no formal or organized service with only a knowledgeable

pathologist responsible for the comprehensive interpretation. When I felt I was sufficiently competent and that the technical staff was able to provide consistently good quality, I established a formal renal biopsy service at Harbor. As there were very few pathologists in Southern California with interest and expertise in renal pathology at the time and given the large population base, this service progressively grew both in number and geographic scope. With time, I established a renal pathology fellowship. One of the early fellows was Cynthia Nast, with whom I have worked for nearly 30 years. Her addition to the renal biopsy service at Harbor allowed the ever-growing numbers to be more effectively handled with two people rather than one. It also made renal pathology more professionally and intellectually gratifying and fun. In addition, pathologists and nephrologists from many countries spent several weeks to a year with me at Harbor and then at Cedars-Sinai.

In the late 1970s, Wayne Border joined the Division of Nephrology, following his fellowship at Harbor. He and I established a close professional as well as a personal relationship, which persisted for many years after he became Chief of Nephrology at University of Utah. My association with the Division of Nephrology at Harbor was very close and I became a member of their faculty. Thus, I held two UCLA academic positions, one in pathology and the other in internal medicine/nephrology. I also began a 20 to 25 year commitment to medical student teaching of nephrology/renal pathology, mostly with my UCLA-based colleague Gabriel Danovitch who handled the clinical aspects of this combined approach for approximately 75% of these many years.

At the end of 21.5 years at Harbor, I decided that it was time for a change and, rather than leave the Los Angeles area, I recruited myself, Cynthia and the renal biopsy service to join the Department of Pathology at Cedars-Sinai Medical Center. The volume of the material continued to grow after the move. However, the complexity of technical, secretarial and other support issues became a major problem in the new institution. After several harrowing years, the department environment improved so that we were able to resume in an efficient and very satisfactory manner. The faculty in renal pathology at Cedars increased as Mark Haas joined from Johns Hopkins (2009) and, more recently, Christine vanBeek remained at Cedars following completion of a fellowship (2011).

As mentioned previously, in the late 1970s, after Wayne Border completed his fellowship in nephrology at Harbor, he joined the faculty in the Division of Nephrology there. We had common interests in research, teaching and patient care; we became friends and collaborators. We studied clinical and pathological features of Bence Jones (myeloma) cast nephropathy and reported on previously not well emphasized aspects of clinical presentation and cast and tubular morphology. Along with Dick Glassock, we also described the controversial variant (or separate entity) of minimal change disease, IgM nephropathy, among other lesions. I collaborated with Wayne and his fellows, including Sharon Adler, Elaine Kamil and Haiyan Wang, on his work on antigenic charge influencing type of immune complex. This collaboration persisted for many years, including after he left Harbor to become Chief of Nephrology at University of Utah. There I worked with him and Nancy Noble assessing the role of TGF-beta in glomerular injury. Projects with other collaborators dealt with descriptions of morphology and pathogenic mechanisms of HIV-associated nephropathy.

Early in my career, I religiously attended all USCAP meetings, especially the evening sessions in renal pathology, which were exciting, educational, and led by the true giants of the day of renal pathology. After several years of attending, I meekly approached Dr. F. K. Mostofi and invited myself to become a member of that panel to which he, after thinking about it for some time, agreed. I believe that I was able to "hold my own" for the most part and I found that particular venue to be an exciting one from which to learn, interact with experts, and to present at and benefit greatly professionally.

As I was in the right place at the right time or the wrong place at the wrong time for many instances in my career, and as I began to attend the American Society of Nephrology (ASN) meetings with the same religiosity that I did the USCAP meetings, I had the good fortune of becoming acquainted professionally and then personally with many of the other renal pathologists, including those senior to me and others of my age and experience peerage. This allowed me to have an interest in joining and forming the Renal Pathology Club and then the Renal Pathology Society. The Society issue evolved during the time that I was a member of the USCAP Education Committee, when it was apparent to the committee and the committee chair, Harvey Goldman, that at the time (mid 1980s) that renal pathology was beginning to atrophy as a presence at the USCAP meetings because the research work was presented at and renal pathologists were spending more time and emphasis at the ASN. This led to discussions with members of the Renal Pathology Club and the obvious conclusion was that we needed to do something to reestablish our presence at the USCAP. A major consequence of our absence was that pathology trainees were not made aware of the broad field of research, diagnostic aspects and educational opportunities in renal pathology, which would negatively impact the ability to attract young pathologists to this subspecialty. The best way to begin to reverse this trend would be to form a companion organization (society) and hold a companion meeting, as done successfully by many other specialty groups. The rest is history regarding our presence at the USCAP meeting, the development of the Renal Pathology Society and the excellent continued growth and emphasis that it has attained.

In looking back at my career in renal pathology, it occurred to me that I am in a specialty (Pathology) in which I had no interest, I am in academic medicine, something that was not at all attractive to me in medical school and house staff days, and I resided for 40 years on the West Coast, which was supposed to be merely for two years as I finished a residency that I really did not want either. The message is that often many of the things that we do or become are despite us and are often the result of decisions and circumstances beyond our control. I know that this can be said for many of our colleagues in renal pathology, among many other professional settings. I believe that what we do with our knowledge is more important than what we did to obtain it.

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