



Dr. Constantine Karakousis: The Quintessential Surgical Oncologist

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Constantine Karakousis, M.D.

It is an honor for us to write about Constantine Karakousis, M.D., one of the founding fathers of the specialty of surgical oncology. Dr. Karakousis passed away on 30 March 2020. He was born on 27 February 1939, in Galatista, Greece, and grew up in Kalamata. Dr. K, as he was affectionately called by his surgical oncology fellows and residents, completed his medical school education at the University of Athens and subsequently immigrated to the US to pursue residency training in Boston and Syracuse. He completed a fellowship in surgical oncology at Roswell Park Cancer Institute (RPCI), where he settled down with his family in 1973. He quickly rose to the rank of Professor of Surgery at the State University of New York at Buffalo.

Dr. Karakousis was a very compassionate individual, and often took on surgical cases when other surgeons felt nothing could be done. Many of these surgical procedures required a considerable amount of operating room time. Dr. K's clinical service at RPCI was called "STM" for soft tissue sarcoma/melanoma. For the surgical oncology fellows, STM stood for *stay till midnight!* There are many patients today who are alive and grateful for Dr. Karakousis and his surgical talents.

Dr. Karakousis took on many daunting surgical oncology challenges. The list is extensive, but includes metastasectomy for disseminated melanoma, limb-preserving surgery for extremity soft tissue sarcomas, resection of large retroperitoneal sarcomas, and resection of pulmonary metastases from sarcomas. Through his fearless surgical approach to caring for patients with these challenging problems, Dr. Karakousis pushed the envelope and helped define standards of care for surgical oncology. I know that the surgical residents and fellows he trained can picture Dr. Karakousis, before every surgical case, studying Grant's Atlas in the surgical locker room. He always reviewed the anatomy of the procedure to be performed prior to entering the operating room, no matter how many times he had performed the same procedure. There were times when he actually brought Grant's Anatomy into the operating room as the dissections were ongoing, whether in the retroperitoneal space, the inguinal area, or the pelvis. He was a master at seeing anatomy in three-dimensions. His surgical dissections were meticulous. In the operating room, he was a constant teacher. One of his favorite lines in the operating room would be to turn to the scrub nurse and ask for a particular instrument and end it by saying "today."

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Many individuals, including Dr. Karakousis' colleagues, are not aware that he had written a book entitled "Poems of the Mind"¹ (Fig. 1). There was a section in this book entitled "Critique of Cancer Research." In a three-page letter to me that accompanied the book, he wrote that in this section I should not hesitate to use any of the ideas as if they were my own. He stated that ideas do not belong to anybody in their fleeting ethereal state. He reminded me that they are in the public domain, and it is he who "knows how to select the promising ones and transform them into reality" that deserves all the credit. You can see that Dr. Karakousis' interest in philosophy, when reading Plato and Aristotle as well as the modern philosophers, was an important part of his thought process. He ended his letter in 2007 with the following, "At this stage in my life as I approach fast the end of my career and my life, I wish to remain anonymous and stay out of the limelight." I would say that Dr. Karakousis' request is impossible to keep. He has been, and will remain, a giant in surgical oncology. I also watched his sons, Petros and Giorgos, grow up through my 22 years at Roswell Park. Giorgos Karakousis, M.D. followed in his father's footsteps and has centered part of his career on melanoma as Professor of Surgery at the

Hospital of the University of Pennsylvania. Petros Karakousis, M.D. is a Professor of Medicine at the Johns Hopkins University School of Medicine. I'm sure Dr. K is extremely proud.

Connie was a valuable contributor to randomized surgical trials. As a clinical investigator, he took the time and the dedication to science by entering many of his melanoma patients into three randomized national trials that changed the field. This included the earlier melanoma trials comparing 2 cm versus 4 cm margins, and the efficacy of elective node dissection. When the field moved on to utilize the sentinel node procedure, he contributed his time and his patients in the randomized MSLT 1 and MSLT II surgical trials. He was a pioneer in regional chemotherapy and participated in the early studies of adjuvant immunotherapy using *Bacillus Calmette-Guérin* (BCG) and *Corynebacterium parvum*. His caring nature about the whole patient and their family led Dr. K and his colleagues to do an interesting study showing that spouses of cancer patients undergoing surgical treatment appear to be an underacknowledged population at risk.

Connie transferred his knowledge of complicated surgical procedures and their outcomes, publishing both his techniques and his outcomes in surgical oncology journals and also in two textbooks: *Atlas of Operations in Soft Tissue Sarcomas* in 1985² and *Atlas of Operative Procedures in Surgical Oncology* in 2015.³ His outcomes were among the best reported at the time. He also published a series of surgical technique articles ("How I do it") in the *Journal of Surgical Oncology*.

His classic textbook on *Atlas of Operative Procedures in Surgical Oncology* is the product of the author's long experience with melanomas and sarcomas and, to a lesser but significant degree, with upper gastrointestinal cancers, colorectal, and breast cancers. As such, it offers a "hands-on" practical guide to approaching complex soft-tissue tumors and for performing more extensive tumor resections based on over 40 years of surgical experience. It provides important details about the positioning of patients, incision types, and exposure that can be of paramount importance in the resection of certain tumors. The book contains important general surgical principles for approaching tumors in a variety of locations, but also offers the detail necessary for the safe and oncologically sound resection of these malignancies. Moreover, this operative atlas contains specific information for procedures that are not as commonly encountered in surgical training, but can be invaluable in the management of patients with locally aggressive tumors, such as hemipelvectomy and its variants, sacral resections, and forequarter amputation. Through the use of multiple detailed illustrations, *Atlas of Operative Procedures in Surgical Oncology* serves as a valuable resource to the general surgeon or surgical

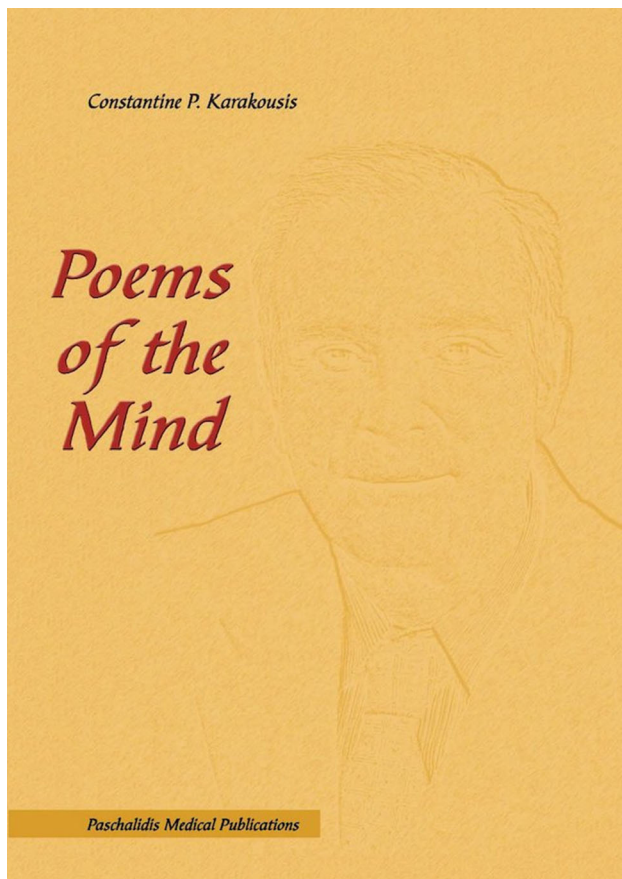


FIG. 1 *Poems of the Mind* by Constantine P. [1]

oncologist in the operative management of patients with cancer in the abdomen, retroperitoneum, pelvis, or extremities.

Connie Karakousis was truly a pioneer, beginning in the early days of defining the specialty of surgical oncology. When the *Annals of Surgical Oncology* was first launched in 1994, Connie was there among the other pioneers of the time in the first pages of the new journal in an editorial entitled: "What is a surgical oncologist?" Throughout his illustrious career he embodied the principles of our specialty: "A surgical oncologist is a broad-based surgeon and an oncologist in a global sense. He or she must be able to coordinate all oncology-related aspects of patient care and communicate with the medical oncologist and radiation oncologist in a competent and well-informed manner."

Dr Karakousis is missed but certainly not forgotten.

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