#### In Memoriam



# In Memoriam of an Eminent Pain Physician: Phulchand Prithvi Raj

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hulchand Prithvi Raj Borundia (September 13, 1931 to February 27, 2016), fondly known as "Raj," was a pioneer and world leader in regional anesthesia and interventional pain management (Fig. 1). Regional anesthesia and interventional pain management will forever be linked with the name of Dr. Raj. His death creates a major void in interventional pain management across the globe (1,2). He is the third interventional pain management physician lost in the modern era with the death of John Bonica on August 15, 1994, at the age of 77 (3) and Alon P. Winnie who died on January 18, 2015, at the age of 73 (4,5). Raj, Bonica, and Winnie contributed enormously to the development and implementation of regional anesthesia and interventional pain management throughout their lives (6-9). Dr. Raj was an international leader in pioneering interventional pain management with the development of multiple training programs, training of thousands of individual physicians, numerous publications, and organization of interventional

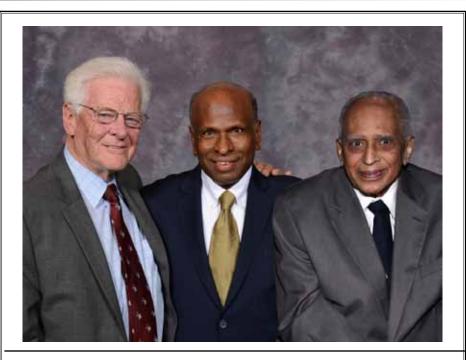


Fig. 1. Prithvi Raj with Gabor Racz and Laxmaiah Manchikanti.



Fig. 2. Raj's parents Phool Chandji Borundia and Badani Bai.

pain management as a distinct specialty. Raj was on the faculty at a number of universities in England, Norway, and throughout the United States. He was also one of the founders of the American Society of Regional Anesthesia (ASRA), the Texas Pain Society, and World Institute of Pain (WIP), along with fellowship examination in interventional pain management offered across the globe (10-12). He also founded, or cofounded, multiple journals including *Pain Practice* and *Pain Digest*. He was a prolific writer and historian.

Consequently, the legacy of Raj meets all 4 principles of a human life: personal, professional, family, and political. His spirit of innovation with integrity, wisdom with kindness, and perseverance with plurality brought many across the globe to be associated with him. Just as his name indicates, Prithvi Raj, meaning king of earth, his influence and research extends beyond interventional pain management and regional anesthesia into the field of drug metabolism, muscle relaxants, and intravenous anesthesia and beyond the United States and India into England, Turkey, Israel, Spain, Russia, and other countries. The medical community recognized his contributions and as a token of appreciation, he was given numerous awards during his lifetime: Gaston La-

bat Award, John J. Bonica Award, Carl Koller Award, Lifetime Achievement Award of American Society of Interventional Pain Physicians (ASIPP), an annual distinguished lecture series at the ASIPP Annual Meeting, and Raj's Distinguished Service Award in interventional pain management by ASIPP.

#### **The Early Years**

Phulchand Prithvi Raj Borundia was born in September 1931 in Bagri Sajjanpur, a small village approximately 100 miles west of Jaipur, Jaipur State, princely state of British India from 1128 to 1948, now the state of Rajasthan, India. His parents were Badani Bai (mother) and Phool Chandji Borundia (father) (Fig. 2). Historically, 1931 was a tumultuous year in world history with the stock market closing around \$170 shortly after the 1929 crash, in the United States, Spain becoming a republic with the overthrow of King Alfonso XIII, British Parliament enacted the statute of Westminster, legalizing dominion equality with Britain, Mukden incident begins Japanese occupation of Manchuria, and, finally, India's planned capital of New Delhi opens. In addition, gangster Al Capone was sentenced for 11 years in prison in 1931, the Scottsboro trial began exposing the depth of Southern racism in the United States, the Star Spangled Banner officially became the national anthem in the United States, and Winston Churchill's hatred towards India became most prominent and he was excluded from the Ministry of Britain.

Raj described his early years as troublesome. He recalled that around the age of 5 or 6 years old, his aunt was trying to take him to school and he didn't want to go, so he bit her knee and took her kneecap off (13). He joked that was how much he resisted going to school in those days, but he also learned a serious lesson, which left a lifelong impression on him ... that if you do something wrong, even the person who loves you can give you punishment. This was related to his grandfather, who loved him very much, hit him when he refused to go to school as he didn't know what else to do. That was the first time his grandfather hit him, which caused bruises all over Raj's body.

While growing up in his parents' home in Bangalore, South India, there was an emerging revolution in India. By the time he was 10 years old, the war had started in 1941. This led to a tenuous situation with Bangalore becoming the southern command for the allied forces and essentially making it dangerous to live in that city. During this period, Raj was pushed off 1,000 miles away for his education, to his ancestral home in

the north. At that time, another rather unusual thought occurred to Raj to become an orthopedic surgeon. He stated he did not know why and none of his family members had any medical background.

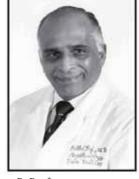
Subsequently, he returned to Bangalore and completed high school at St. Joseph's High School for Boys in Bangalore (Fig. 3). While he continued to nurture his idea of becoming an orthopedic surgeon, his father opposed the idea. This led to another rebellion at a young age to leave home and stay with his uncle in Madras, which facilitated his education and, finally, his dream of becoming an orthopedic surgeon. Later on, his father realized Prithvi Raj's determination and accepted his rather ambitious plan, leading to his enrollment in Mysore Medical College. After successful completion of medical school, he completed his internship with successful graduation in 1958 from Mysore Medical College (Fig. 4). After graduating from medical school at age 26, his desire to become an orthopedic surgeon continued and he followed his friends who were going to England and found a position as a houseman in the surgery department.

His journey in England started as a house officer in 1958 in Ashton at Lyne, Manchester, and became registrar in 1962. During the pursuit of orthopedic surgery training, 4 years later, he met and married his wife Susan Martin, who was training as a nurse, in Darlington in 1963. Susan Raj remained his devoted wife and confidante, and a working partner in not only family life, but also his professional and public life (Fig. 5).



Fig. 3. Raj with daughter Maya at St. Joseph's High School for Boys.

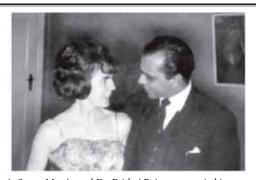




A. Medical Student

B. Professor

Fig. 4. Transformation of Prithvi Raj from medical student to international professor.

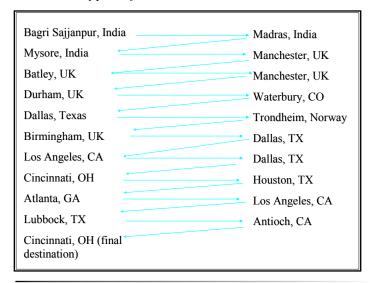


A. Susan Martin and Dr. Prithvi Raj were married in 1963 in Darlington, England. Photograph is from Dr. Raj.

B. Susan Raj and P. Prithvi Raj at home in Cincinnati after retirement.

Fig 5. A journey of success.

Table 1. The Raj pathway.



## Migration from U.K. to U.S. and Orthopedics to Anesthesiology

After achieving his dream of being an orthopedic surgeon, with a combined spirit of adventure and innovation, Raj and Susan decided to venture their careers in the United States (Table 1). Raj entered a rotating internship at St. Mary's Hospital, Waterbury, Connecticut. However, during this time he learned the disappointing truth that the United States would not recognize his training in orthopedics in England, thus requiring full orthopedic residency. Raj recalled that he was disappointed after he heard from the American Board of Orthopedics that his training was not valid and he had to do 4 years again in orthopedics in the United States (13). Subsequently he got a position at New York University for an orthopedic residency. At the same time, his relatives, who were already here, got him a position in anesthesiology in Dallas. Raj stated that Dr. Pepper Jenkins told him that an anesthesia residency was for only 3 years and he could finish up and have a new specialty. Further, anesthesia would provide a better chance than orthopedics. Thus, with an innovative dynamism looking for opportunities, Raj immigrated not only to the United States, but into the specialty of anesthesiology. He started his anesthesiology residency under a charismatic chairman, Dr. Pepper Jenkins, in 1963 at Parkland Memorial Hospital in Dallas, Texas (2). Tragically, it was soon after the assassination of John F. Kennedy in Dallas, which had an enormous impact on Dr. Raj and his subsequent political philosophy. Certainly, Dallas influenced his life where he spent time as a resident and faculty member and also became a fan of the Dallas Cowboys. Dr. Raj considered his life in Dallas to be one of the most educational, memorable, and happiest.

At the University of Texas Southwestern in Dallas, he was mentored by Dr. Pepper Jenkins with whom he became close friends and Dr. Raj fondly stated that Dr. Jenkins was the "prime reason my professional life really began." This experience of training instilled strong values in Dr. Raj about his future endeavors.

After completion of his residency in Dallas, he wanted to do a specialized third year. He sought suggestions from Pepper Jenkins who got him a position in many places, like in Switzerland, Scotland, Canada, Sweden, and Norway. Jenkins commented that "nobody thinks about Norway, the land of Midnight Sun," so Raj thought for the fun of it, they chose Norway, even though he could have been in Switzerland and other places (13). After finishing his third year of residency in Norway, he was invited to come back to Dallas as a faculty member; however, Dr. Jenkins also suggested that he go ahead and take his fellowship in England while he was there. Subsequently, Raj got a position in England as a Registrar in Anesthesia in Warwick, spending another 3 years in England during which time he did his fellowship and was offered a consultant position in cardiovascular anesthesia. While he was a Senior Registrar in anesthesiology at the University of Birmingham, he completed the Fellow of the Faculty of Anaesthetists of the Royal College of Surgeons (FFARCS) examination. Not surprisingly, as he completed his 2 years, Dr. Jenkins requested Dr. Raj to return to the United States. He was appointed in 1969 as an Assistant Professor at UT Southwestern with a joint appointment in biochemistry, which led to basic research in cytochrome P-450 and plasma cholinesterase (14). He continued his career in Dallas, subsequently moving up to the Dallas VA Hospital as Director of Anesthesia Service.

During a 5-year career in Dallas, Raj researched many areas ranging from acute epiglottitis (15), respiratory function test, enzymatic drug metabolism (14), fiberoptic laryngoscopy (16), intravenous regional anesthesia (17), use of peripheral nerve stimulators (18), infraclavicular block technique (19), supine approach to sciatic-femoral nerve blocks (20), and the pharmacokinetics of repeated bolus versus infusion techniques for prolonged regional anesthesia (21,22). These revolutionary manuscripts led to highly reputable positions for Dr.

Raj in the regional anesthesia world, which eventually led to the formation of ASRA in 1975 (10). While nurturing his pioneering research in regional anesthesia, Raj also assumed responsibility for pain management for inpatients and outpatients. During his experience treating cancer patients who had developed tachyphylaxis with local anesthetic injections, he developed continuous infusion techniques (22).

Among multiple appointments in Dallas, in 1974 he became the Associate Professor and Vice Chairman in the Department of Anesthesiology at UCLA and Director of Anesthesia at Wadsworth VA Hospital, Los Angeles, by invitation of Dr. Ron Katz (2). From 1974 on, Dr. Raj focused mainly on regional anesthesia. He was director of anesthesia at Wadsworth VA Hospital at UCLA from 1974 to 1976.

## **Transformation to An Eminent Pain Physician**

Following his career at UCLA from 1974 to 1976, he renewed his interest in pain practice, returned to Dallas to start the Pain Relief Center Texas Neurological Institute, the 4th pain clinic in the United States. During this time, Raj was invited by Dr. Phillip Bridenbaugh, Chairman of the Department of Anesthesiology in Cincinnati, in 1979 to start a new pain center. Along with starting a new pain center, Dr. Raj also started a one year fellowship and chaired the pain program from 1979 to 1986 (Figs. 6 to 10).

His monumental publication, a practical text on the management of pain, was published in 1986 after 4 years of writing, during his service at the University of Cincinnati as shown in Fig. 11 (6). Following the successful publication of Practical Management of Pain, Raj was asked to write more books, which led to the publication of the Handbook of Regional Anesthesia, Clinical Practice of Regional Anesthesia, and others in later years.

With his experience in starting pain fellowships, in 1986 he started the pain fellowship program at Tex-



Fig. 6. John Bonica and P. Prithvi Raj.



Fig. 7. Alon P. Winnie and P. Prithvi Raj.



Fig. 8. Drs. Raj and Racz at ASIPP Annual Meeting 2014 in New Orleans.



Fig. 9. Grand opening of the Pain Center at UTHSC, Houston was attended by Drs. P Prithvi Raj, Robert Merin, Philip Bromage, Gabor Racz and Michael Cousins.



Fig. 10. Raj teaching at a cadaver course.

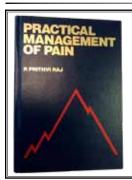


Fig. 11. First edition of Practical Management of Pain.

as Health Sciences Center in Houston. Following this, in 1991, he moved to Atlanta to organize a pain clinic as a satellite of the Medical College of Georgia. Subsequently, he returned to UCLA from 1994 to 1996 to develop a pain fellowship program. Then, in 1996, he joined Dr. Gabor Racz at Texas Tech University as Director of the International Pain Institute, and Co-Director of the Pain Institute, where he served from 1996 to 2003 and retired at the age of 72. After a short stay during his retirement in California, he moved to Cincinnati.

All of the moves served to advance his academic career. He never wavered from his commitment to improve the practice of regional anesthesia initially and interventional pain management subsequently.

## **Pioneering Efforts of Pain Management**

After Raj published the first Practical Management of Pain textbook and started the first one year pain fellowship program, he trained numerous physicians across the globe with including former students' children, grandchildren, and great grandchildren; his influence will live for decades. Dr. Raj published numerous pioneering manuscripts and multiple editions of his first book in pain medicine which changed its focus into interventional pain management (23-41). It is a well-known fact that no one described the history or evolution of pain management as Dr. Raj did in his first book, Practical Management of Pain, and numerous presentations. Dr. Raj believed that neurolysis of the celiac plexus and splanchnic nerve was very effective for patients suffering from pancreatic cancer pain; however, they were associated with serious complications of paraplegia, secondary to the injection of alcohol or phenol. Consequently, Dr. Raj proposed radiofrequency ablation of the splanchnic nerves as an alternative, which produced the desired pain relief and avoided the hazard of paraplegia (23).

His conviction to pain management dates back to the 1970s. In his 1990 Labat address, "Pain relief: Fact or Fancy?" Dr. Raj noted that even though tremendous advances had been made in pain relief research, the world still lagged behind in access and education, and for most patients, particularly those in developing countries, pain relief remained a fantasy (10,42). These statements demonstrated a continued interest in global involvement.



Alon P. Winnie, M.D.



P. Prithvi Raj, M.D.



Harold Carron, M.D.



Jordan Katz, M.D.



Fig. 12. Founders of ASRA in 1975.

## **Public Life with Strong Convictions**

Dr. Raj displayed a passion for organizing people, events, and resources to promote awareness, as well as standard of care, throughout his career. His organizational skills were shown ever since he was a medical student in Mysore, India in the 1950s, where he organized a well attended museum to educate the public about how physicians were trained. The same skills continued in organizing pain clinics and multiple societies (13).

Thus, Dr. Raj was not only innovative and pioneering in scientific aspects, but also in promoting the specialty of regional anesthesia and interventional pain management. He was one of the 5 founders (Fig. 12) of ASRA in 1975 (10). The history of the refounding of the ASRA, now known as the American Society of Regional

Anesthesia and Pain Medicine (ASRA-PM), dates back to late 1973 when 5 dreamers met, now called the founding fathers of the ASRA, to form a society devoted to teach regional anesthesia. These 5 pioneers of regional anesthesia were Alon Winnie, Donald Bridenbaugh, Harold Carron, Prithvi Raj, and Jordan Katz.

Historically, ASRA was founded in 1923 as a tribute to Gaston Labat. It was dissolved in 1940 because of decreasing interest and membership (10). In addition to Raj's tireless research in regional anesthesia, he directed many programs, served as a member of the editorial board of Regional Anesthesia (1974 - 1976), as a program organizer, committee member, and ultimately as president from 1986 to 1987. For his dedication to regional anesthesia, he received a distinguished service award in

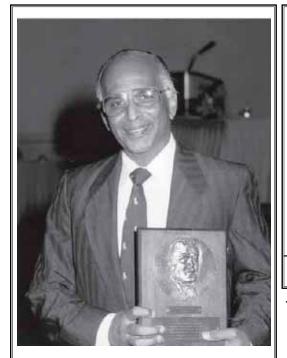


Fig. 13. Dr. Raj receives the Gaston Labat Award from ASRA, 1990.



Fig. 14. Dr. Raj with Dr. Aaron Calodney.

2005 from ASRA. He also received the Gaston Labat Award from ASRA in 1990 and the Carl Koller Award in 2000 from the European Society of Regional Anesthesia (ESRA) (Fig. 13).

The second major involvement of Dr. Raj was the formation of the Texas Pain Society (11). The idea of forming the Texas Pain Society came to the founders in 1987 due to disparity and deficiencies in the practice of pain management in the United States and, in particular, the state of Texas. With careful con-

sideration and diligent mapping out of its mission and goals, the Texas Pain Society was formed with its activities unfolding from 1989 to its current status as a dynamic organization. The Texas Pain Society is also now affiliated with ASIPP as not a chapter but considered as a state society without a competing society. Texas Pain Society signed memorandum of understanding with ASIPP to coordinate and cooperate on the promotion of the goals of the Texas Pain Society and the national society. Even though multiple personalities such as Drs. Racz, Heavner, Hill, Grabois, Neill, Talmage, Willis, Gerger, Noe, and Calodney were involved with contributions from each one of them, the Texas Pain Society is considered the brainchild of Dr. Raj, with many of



Fig. 15. Drs. James Heavner, Erdine, Racz, Raj, Ruiz-Lopez, and Helm in 2002.

them being trained by him and others, his colleagues. With formation of Texas Pain Society he brought multiple personalities and specialists interested in pain medicine together - interventionalists, non-interventionalists, behavioralists, and researchers. This relationship was further fostered when he moved to Texas Tech University. Apart from Dr. Raj (Sept. 13, 1931 to Feb. 27, 2016), president of American Society of Interventional Pain Physicians, Aaron Calodney, MD, also became the president of Texas Pain Society (Fig. 14). Other important contributors to interventional pain management from Texas include: Dr. James Heavner (April 25, 1944 to May 18, 2016), a tireless researcher contributing to all levels of collaboration with not only Texas Pain Society, but also with World Pain Society and the activities of Texas Tech University (Fig. 15). Another icon of interventional pain management, a neurosurgeon, Sam Hassenbusch (Feb. 6, 1954 to Feb 25, 2008) also was former president of Texas Pain Society, president of American Academy of Pain Medicine and recipient of Lifetime Achievement Award from the American Society of Interventional Pain Physicians (Fig. 16). Since its inception, the Texas Pain Society has achieved many of its goals and influenced the practice of pain management in Texas.

In addition to multiple other societies, Dr. Raj formed WIP with Niv, Erdine, Ruiz-Lopez, and Racz as cofounders in 1993 (Fig. 17). WIP now represents 50 countries with many of them certified by its landmark examination Fellow of Interventional



Fig. 16. Dr. Sam Hassenbusch with Dr. Raj.



Fig. 17. Founders of World Institute of Pain and Examiners, 2002.





Fig. 18. ASIPP Lifetime Achievement Award 2003.



Fig. 19. ASIPP distinguished lecture New Orleans.

Pain Practice (FIPP) with over 1,000 physicians in 50 countries. These countries not only include the United States and England, but also range from Australia to Switzerland, Thailand, and Ukraine. For many countries, FIPP certification is the only certification available to assess the competency of pain physicians in performing interventional techniques. His passion for world affairs was revealed as shown above in 1990 during his 1990 Labat address (10,42).

His other major association was with ASIPP of which he was a lifetime member and the recipient of the Distinguished Service Award in 2013 and Lifetime Achievement Award in 2003 (Fig. 18). The Board of Directors of ASIPP honored him by naming a distinguished lecture after Raj and Racz in 2015 (Figs. 19 and 20). He was instrumental in providing many opportunities for ASIPP and providing guidance. His assistance was insurmountable in the formation of board review courses for pain medicine examination and also establishment of the practical examination of the Ameri-



Fig. 20. Photograph taken after ASIPP distinguished lecture at 2016 Annual Meeting in Florida. Joshua A. Hirsch (moderator), Gabor B. Racz, Devi E. Nampiaparampil, Prithvi Raj, and Laxmaiah Manchikanti.

can Board of Interventional Pain Physicians. Over the years he developed close relationships with many of the members of ASIPP as a teacher, mentor, and above all, an advisor with firm conviction (Fig. 21).

During his tenure at Texas Tech University and his research publications and world-wide conferences, those who have contributed and assisted include many of the faculty of Department of Anesthesiology at Texas Tech University, but most importantly James Heavner, DVM, PhD (Fig. 15, 17) and Paula Brashear (Fig. 22), were crucial in coordinating and implementing many of the invaluable activities.

#### **Publications and Awards**

Dr. Raj was a prolific writer and historian. He was the author of many pioneering and monumental publications, along with monumental books, teaching videos, and the founder of multiple journals including *Pain Practice*.

His publications over the years were remarkable for their pioneering efforts in developing regional anesthesia, interventional pain management, and understanding of pain at the molecular level. His historical perspective was unmatched. Overall, he published hundreds of peer-reviewed manuscripts, book chapters, and 13 books. He continued his publication activities even during his retirement years. He received extensive



Fig. 21. Dr. Raj with Drs. Manchikanti and Racz.

awards across 3 continents and was certified by multiple organizations:

- 1966 Fellow American College of Anesthesiologists (FACA)
- 1967 Fellow in the Faculty of Anesthetists of The Royal College of Surgeons of England FFARCS (England)
- 1971 Diplomate American Board of Anesthesiology (DABA)



Fig. 22.Dr. Raj with staff members: Ann Edmunds, Mary Pasewark and Paula Brasherar 2005 in Puerto Rico for WIP conference and FIPP Examination.



Fig. 23. Raj Award of Excellence in Interventional Pain Management at ASIPP's 18<sup>th</sup> Annual Meeting presented to Gabor B. Racz by Susan Raj.

- 1972 Diplomate American Board of Pain Medicine (DABP)
- 1993 Added Qualification in Pain Management (ABA)
- 1994 Fellow of Interventional Pain Practice (FIPP)
- 2003 Recertification of added qualification in Pain Management (ABA)
- 2005 Diplomate of American Board of Interventional Pain Physicians (ABIPP)

During his professional career and even after his death, he received numerous honors and awards. Some of the significant recognitions and awards are as follows:

- Dr. Raj's Distinguished Award in interventional pain management instituted by ASIPP in 2016 (Fig. 23)
- 2014 Establishment of Annual Distinguished Lecture entitled: "Raj-Racz Distinguished Lecture" (Figs 19, 20)
- 3. 2013 Distinguished Service Award: ASIPP
- 4. 2009 John Bonica Award: ASRA
- 2007 Recipient of Founding Father's Medal: ASRA
- 6. 2005 Distinguished Service Award: ASRA
- 7. 2003 Lifetime Achievement Award: ASIPP
- 8. 2003 Premio Guido Moricca Award: Sardinia, Italy
- 9. 2002 Career Excellence in Pain Medicine: American Neuromodulation Society
- 2000 Outstanding achievements in Regional Anesthesia and Pain Medicine: TTUHSC Department of Anesthesiology and Pain Management
- 11. 2000 Carl Koller Award: European Society of Regional Anesthesia (ESRA)
- 12. 1995 Distinguished Academician: Academy of Medicine of Singapore

- 13. 1995 Nils Lofgren Award: Astra Pharmaceuticals for Outstanding Contributions to the Field of Regional Anesthesia
- 14. 1990 The Gaston Labat Award: ASRA (Fig. 13)

#### **Personal Life**

Dr. Raj was born in India and lived across the globe, the majority of which was in the United States. After his retirement in 2003, Dr. Raj lived in Cincinnati, Ohio, with his wife, Susan. They have 3 children – Mark J. Raj, Maya Raj Andreadis, and Sarah Rosso (Fig. 24). They are blessed with 7 grandchildren, 5 boys and 2 girls, spread out from the south to the mid-west (Fig. 25).

Dr. P. Prithvi Raj passed peacefully away at home on Saturday, the 27th of February, at the age of 84, surrounded by his family.

## **SUMMARY**

Interventional pain management started in 1901 with the introduction of caudal epidural local anesthetic for managing low back and lower extremity pain (43). Since then, the landmark developments in study and education in interventional pain management are credited to Dr. Raj starting in the early 1990s with his

interest in managing chronic pain. No doubt, his initiation of multiple pain programs, fellowship training programs, and most importantly, the first publication of Practical Management of Pain, opened the floodgates for this specialty. As described in the Raj-Racz Distinguished Lecture on April 15, 2016, at the 18th Annual Meeting of ASIPP in Dallas, entitled "Interventional Pain Management: The Time of Our Lives," as Laurens van der Post stated "We live not only our own lives but, whether we know it or not, also the life of our time." With numerous challenges facing the management of chronic pain, the evolution of interventional pain management has been described as beginnings or pioneering stage from 1901 to 1970, followed by growing pains from 1971 to 1997, which included globalization and explosive utilization, with unchecked adulthood from 1998 to 2008 with continued globalization and explosive utilization, finally reaching reform with regulations and retrogression from 2009 to 2016. Dr. Raj was involved from the early 1970s until his death in 2016 in the evolution and development of interventional pain management. Jean Sicard (1872 - 1929) has been described as the first pain doctor with his groundbreaking description of caudal epidural injection of local anes-



Fig. 24. Family picture of Raj.



Fig. 25. Family picture of Raj with children and grandchildren.



Fig. 26. Family picture of P. Prithvi Raj, Gabor Racz, and Laxmaiah Manchikanti in Paducah.

thetic to treat sciatica (43). In 1953, Bonica nurtured an interest in pain medicine with the publication of his seminal book, The Management of Pain (7), the publication of the gate control theory in 1965 by Melzack and Wall, Raj has been in the forefront of the formation of multiple organizations and developments throughout his life. The twenty-first century is marked not only with numerous developments of interest to interventional pain physicians and pain sufferers, but also unprecedented regulations and hindrances to chronic pain management. Dr. Raj made it his lifetime goal to advance the management of chronic pain across the world and make pain relief a reality.

Alon Winnie commented that Dr. Raj has the elbow mark on medicine, anesthesia, and pain management. He also commented that Raj had one of the real rewards of academic achievement with an opportunity to make friends with so many people all over the world and everyone in pain management is really indebted to Dr. Raj. His convictions, honor, love, and generosity will live forever.

Personally, Dr. Raj was the first pain physician I ever met, as I met him in 1977 soon after my immigration to the United States, as a first year resident in anesthesiology. He made such an impression on me that drove me to become a pain physician (Figs 26,27). Through the years, he provided help with my early publications and he offered encouragement to help me advance my abilities to publish. Finally, his trust, friendship, and advice as a father figure, excelled not only my personal career, but also the American Society of Interventional Pain Physicians, the evolution of interventional pain management and the evolution of the specialty which would have just remained a dream, but became a reality.



Fig. 27. Laxmaiah Manchikanti with Susan and Prithvi Raj.

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