Ninan T. Mathew, a highly respected figure in academic headache circles around the world, passed away on July 27, 2015, in Houston, Texas, USA. Given his pioneering work in the headache field, it is befitting that this tribute should be written jointly by two headache experts who knew him well: Alan M. Rapoport (AMR), who was his contemporary and good friend of the family, and K. Ravishankar (KR), who later trained with him.

Ninan hailed from the scenic state of Kerala in Southwest India and obtained his medical degree from Trivandrum Medical College. Even as a medical student, he was interested in neurology and completed his post-graduate training from Christian Medical College, Vellore. He then moved to Houston in 1970 and completed his fellowship in cerebrovascular disease and stroke at Baylor College of Medicine in Houston, where he subsequently served as faculty member.

His interest in headache started through research on cerebral blood flow in migraine, with the late John Stirling Meyer. Around this time, he noted that headache problems were not being addressed adequately and that headache treatment was also suboptimal. With the aim of bridging this gap, and with encouragement from other senior American colleagues, he established the Houston Headache Clinic in 1976. This was the first headache specialty center in Texas. Soon he was able to carve out a niche for himself in this emerging field, and eight years later he started the Dallas Headache Clinic. Gradually headache also came to be better recognized and for many years, the Houston Headache Clinic remained a major referral and research center for headache patients from around the world.

Ninan had more than 200 scientific publications to his credit, in leading journals such as *Cephalalgia*, *Headache*, *JAMA*, *Lancet Neurology* and *Neurology*. These included 1) the first description of transformation of episodic migraine into chronic daily headache (*transformed migraine*), a term many headache specialists like, as it appropriately describes the evolution of the entity and 2) recognition of the clinical importance of medication overuse in determining the progression to chronic migraine and the importance of detoxification in its treatment. Ninan strongly believed that the majority of chronic headaches were migraine variants and that medication overuse and comorbidities were important factors in creating and perpetuating the chronicity. He was actively involved in conducting clinical trials of new medications for headache therapy and was often first author on significant papers.

Ninan served various national and international headache organizations. He was president of the International Headache Society (IHS) and the American Headache Society (AHS). Along with other stalwarts in the field of headache, Ninan was closely involved in furthering the activities of The American Association for The Study of Headache (AASH), as it was then called. He was chairman of the Headache Section of the American Academy of Neurology, and the American Council for Headache Education. He was one of the founding members of the international research group on cluster headache, a member of the “Cluster Club,” and was chairman of the Fifth International Headache Congress held in Washington, DC, in 1991.
He was a recipient of several American Headache Society Awards, including the 1976 Harold G. Wolff Lecture Award and the 1994 John R. Graham Distinguished Clinician Award. He was a Fellow of the American Academy of Neurology and the American Headache Society and was on the faculty of the courses offered at the annual meetings of both organizations. He was featured in a 2002 cover story on headache in *Time* magazine and appeared on numerous radio and television programs for the National Headache Foundation and the American Council for Headache Education. Ninan was also the recipient of three Lifetime Achievement Awards from the Texas Neurological Society in 2012, the Headache Cooperative of New England in 2013, and the American Headache Society in 2014.

Ninan wrote chapters for many leading textbooks and monographs addressing headache. He edited books on cluster headache and his *Handbook of Headache*, which he co-authored with Randy Evans, covers modern advances in headache. He was guest editor for several Neurologic Clinics and served as a member of the editorial boards of *Headache* and *Cephalalgia*. He was a frequent reviewer for *Neurology*, *Headache*, *Cephalalgia*, and *Lancet*.

He loved to teach and was a teacher of a different kind. While most teachers taught through didactic lectures and bedside clinical rounds, with Dr Mathew you learned by observing him and interacting with him. He was always ready to explain in detail the reasons for a particular diagnosis or choice of specific drug combinations in certain clinical settings. Between patients, he always took time to explain his methodology. Having contributed so much to the literature, he had answers to most complex headache dilemmas.

Dr Mathew strongly believed that teaching and training in headache medicine should spread across the globe, particularly in countries where the specialty was not well established. He trained several interested clinicians from South America, India, and Europe who completed their Fellowships at the Houston Headache Clinic and went on to establish headache clinics in their countries, along similar lines. He also helped them establish successful careers in the headache field in their countries. I (KR) was one among the many students to have been taught the art of headache management by Dr Mathew.

He maintained charts meticulously and instructed his patients to keep accurate headache diaries. These were of great help to him in writing many of his landmark papers. He was among the first to write about idiopathic intracranial hypertension without papilledema in patients with chronic headache. I (KR) was training with him during this period and was assigned the project. With magnetic resonance (MR) venography not being so advanced in those days as it is today, we had to perform repeated careful lumbar punctures and cerebrospinal fluid (CSF) pressure
measurements in all obese patients with chronic headache. With no clear-cut elevation in CSF pressure readings in the first few patients, I began to feel we were probably not going to find anything abnormal. But Dr Mathew persisted with his conviction and when more patients were analyzed, results showed that he was right, and a new entity was confirmed and described.

Ninan was not afraid of experimenting with new modalities of treatment. He was an early user of onabotulinumtoxinA in many unusual situations. He tried it in nummular headache, and he was also one of the first to set up biofeedback training and computed tomography (CT) imaging within a headache clinic, thus providing a comprehensive one-stop center for headache care.

He taught frequently in his home country, India. Neurologists looked forward to his annual visits and he made it a point to attend the meetings of the Indian Academy of Neurology, to meet his friends and to teach. He was of great support to me (KR) in my endeavor to establish the first headache clinic in India.

In addition to his academic career, Ninan was involved with various cultural institutions. He was a founding patron of the Hobby Center for the Performing Arts and the Asian Galleries of the Museum of Fine Arts, Houston. His interests included world travel, collecting antiques, and gardening. He liked watching Indian movies and listening to old Hindi songs. But his strongest passion was his family. He is survived by his wife Sushila, his daughter Rita, and sons Sanjay and Vijay and several grandchildren, most of whom lived close to each other and to Ninan and Sushila.

In his final years, Ninan knew he had a tough battle with his illness but still remained upbeat and even attended a speaker’s bureau meeting less than two months before he died. He will always be remembered for the determination with which he followed his ideas and convictions, many of which might have initially appeared controversial but in the end were proven correct. His research and writings have shown us that when the head follows the heart, one is on the right path!

One of us (AMR) became friendly with Ninan and Sushila in the early 1980s. We talked a lot about our growing children, their marriages, our grandchildren, headache practice, and life. I (AMR) knew all three of his children and became friendly with his older son Sanjay and met him on several occasions, including during his undergraduate years at Dartmouth and as a guest and speaker at his wedding.

Ninan was generous with his time and advice. He encouraged me (AMR) to stay active in the International Headache Society (IHS) and was somewhat responsible for my becoming a board member. He was also determined to follow through with his obligations. He had planned for months to travel all the way from Houston to Stowe, Vermont, to receive a lifetime achievement award at the Headache Cooperative of New England (HCNE) meeting in the dead of winter. When the time came, he reluctantly called to say he was not up to making the trip. When I suggested he speak to the 100 people in the audience on Skype displayed on the screen in the lecture hall, he eagerly consented. That was Ninan!

Ninan was not only a headache pioneer, a sound clinician, and great researcher but he was also a physician who really cared for his profession and his family. He showed us the way and brought so many along with him to carry on after he was gone. We will really miss him. May his soul rest in peace!

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