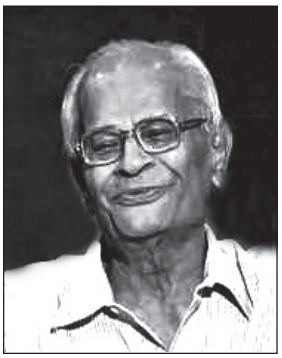
# *Obituary*

**Manu Liladhar Kothari**
*(19 November 1935–16 October 2014)*



I was at work in the hospital till 10 p.m. on 15 October 2014. On my return home I was told that Manubhai (as I called him) had telephoned. Unwilling to disturb him at that late hour, I decided to talk to him the next morning. We usually talked to each other around 7 a.m. and so I called him at his home to be answered by an unfamiliar voice. I confirmed that I had called Manubhai's home and asked if I could talk to him. After a couple of moments of hesitation, I was told, 'Manubhai has gone away.' Puzzled, I asked where he had gone as he had called me just the previous night. Recognizing my inability to comprehend, my informant specified, 'Manubhai is no more.' As the enormity of this tragedy dawned on me, I requested an opportunity to talk to Manubhai's son, Vatsal. Vatsal kindly came to the telephone and through audible signs of acute distress, told me of Manubhai's sudden death. He told me something that assuaged my grief to some extent. 'A few minutes earlier, he was laughing and joking with us.'

Manubhai had long pondered life and death. Along with his long-term academic associate, Dr Lopa Mehta, he had written essays and the book *Living, dying* embodying their philosophy on these subjects. In portraying Einstein's death (on page 100 of *Living, dying*), Manubhai described his own: 'As fearless as he was in life, so quietly and modestly he faced death. He left this world without sentimentality and without regret.'

The journey from his birth to 16 October 2014 was full of creativity, joy, friendships and generosity.

He studied medicine at Seth G.S. Medical College and King Edward VIII Memorial Hospital in Bombay (now Mumbai). Among his teachers were Professors Rustom Jal Vakil, U.K. Sheth, P.K. Sen, Vasant Sheth, G.D. Adhia, P. Raghavan, Suresh D. Store and K. Ramamurthy.

Evidence of his extraordinary and novel ways of observation and expression were evident even when he was a resident doctor in surgery. At that time Mr Hamilton Bailey's books on surgery were required reading in most parts of the English-speaking world and students in India were rarely seen to study works other than his *Demonstrations of physical signs in clinical surgery* and the larger, more comprehensive *Short practice of surgery* written with Mr McNeil Love. Mr Bailey was notorious in Britain as being 'domineering and demanding and had little respect for authority, few social graces, and almost no rapport with patients or colleagues'. Even so, Manubhai, a young doctor from Bombay, was bold enough to send him his thoughts on a new 'Method for measuring fixed adduction deformity of hip'. We do not know if Manubhai was surprised when Mr Bailey found his sign valuable enough for inclusion in the 1960 edition of *Physical signs*. *The Lancet* published Manubhai's note on an improved, modified venesection cannula the next year.

Manubhai joined the Department of Anatomy in his *alma mater* as a lecturer in 1963 and gradually rose to be a Professor in 1976 and head of the department in 1981. He was appointed Emeritus Professor on retirement in 1993 and was succeeded by his colleague and associate, Dr Lopa Mehta.

Conscious of the need for students to learn about their heritage in medicine, Manubhai followed each annual talk on the history of anatomy by a colleague with his own account of the contributions of his predecessors: Drs R.P. Koppikar, G.M. Kurulkar, K.D. Desai and S.M. Bhatnagar. He also renamed each seminar room and lecture hall in the department after a pioneer in the medical sciences. Thereafter, students saw notices such as that on a discussion on the heart in the Harvey Room or a demonstration on the spinal cord in the Susruta Hall.

The paper entitled 'Genesis of cancer, a temporal approach' published in 1968 was early evidence of his life-long interest in this disease. A stream of papers and four books on cancer, written with Dr Lopa Mehta as co-author, followed. The *magnum opus* was *The nature of cancer* (1973). One of these books was published in London and translated into German and Dutch.

Research was carried out on the clear understanding that he was to be the first clinical subject in any study. We are not told how many times the nasogastric Ryle's tube was inserted into his stomach when he, his teacher Dr U.K. Sheth and close friend and colleague Dr Ashok B. Vaidya studied gastric acidity and the effects of the intake of salt in the diet. The first paper resulting from these studies was published in 1963. Other papers followed in the *Lancet*, *Gut, Indian Journal of Surgery* and *Indian Journal of Medical Sciences.*

Along with Dr D.S. Pardanani and Dr Lopa Mehta, he studied guinea worm infestation in villages in Maharashtra. The results of these studies were published in Dr K. Das' *Clinical methods in surgery* (1968) and in *Proceedings of the Royal Society of Tropical Medicine and Hygiene* (1969).

His interest in the welfare of the poor patient resulted in several interesting endeavours. I describe briefly just two of them.

Together with his wife, Jyotiben, an obstetrician and gynaecologist, he worked with the Ramakrishna Mission to help tribals around Sakwar, 86 km from Mumbai. In addition to providing medical assistance, they also physically participated in the digging of a well and construction of a dispensary. The Mission, in a recent report, provided evidence of the fruits of such labour: 30 000 tribals are treated each year at the dispensary. Sakwar now has a *balwadi*, a library and holds camps for students and women in addition to training local villagers and tribal's in cultivation techniques that result in better yields.

He served the Kasturba Health Society at Sewagram—the centre founded by Mahatma Gandhi near Wardha—to the end of his life, making periodic visits and serving as a source of inspiration to staff and students at the affiliated Mahatma Gandhi Institute of Medical Sciences (see *http://theprism.mgmcri.res.in/2012/03/being-gandhian/* for a tribute to him by Dr Anbalagan, Professor of Anatomy).

At his *alma mater,* Manubhai was appointed chairperson of the Ethics Committee for Research on Human Subjects. Along with his colleagues on the committee he ensured high standards not only in the studies sanctioned but also in all dealings with funding agencies from the public and private sectors.

Pained by the unethical practices of doctors, laboratories, imaging centres and private hospitals, he vented his feelings at

talks, seminars and conferences and in papers and books. He published essays in the *Indian Journal of Medical Ethics*. He could not understand why doctors, especially in the large cities, who were very well off, lacked a social conscience and behaved unscrupulously, especially with the very poor.

His encyclopaedic mind ranged over a vast range of topics and his photographic memory enabled him to grasp and retain volumes of data. Books and papers flowed from his pen and those of his co-authors on a variety of other topics as well—anatomy, embryology, genetics, evolution, immunity, medicine, the nervous system, semantics, medical philosophy, the art of teaching medicine, dying and death. His thoughts on the structure and function of man continued to challenge established dogma and stimulate thought. *The nature of bones and joints...* published in 1990 is an outstanding example.

In a paper published in 2000, he noted: 'Many a thought is unthinkable without appropriate vocabulary and a frame of reference.' This led him to search the origins of commonly used words and phrases, especially in the medical and scientific literature. This venture into philology helped him show that many medical authors—often those of repute—blundered in their use of words. The word 'normal' is an example. He pointed out that *norma* referred to the carpenter's square with the derivative normal referring to a line, ray or other linear feature intersecting a given line or surface at right angles. In biology and in medicine, he felt the term 'normal' should refer to the area under the Gaussian bell-shaped curve for any feature, be it height, weight, blood pressure, concentration of sugar in the blood or the concentration of prostate-specific antigen in the blood. Used thus, we can avoid the danger of over-diagnosing disease with benefit to our patients who are spared neurosis, expensive tests and hazardous drug therapy.

He also voiced his thoughts that 'we indisputably need new words to keep abreast of new ideas. The intellectual cycle of new concepts spawning new words that in turn beget newer ideas is the heartthrob of expansion of mental horizons.' You will find new words coined by him and Dr Lopa Mehta aplenty in their works.

His wide reading and easy recall of stored facts enabled reproductions of quotations from a wide range of works in his own papers and books. You will find the Gita, Upanishads, Bible, Talmud, works from authors ranging from Ambroise Paré to Henry David Thoreau, Victor Hugo to William Shakespeare, Robert Louis Stevenson to Alexander Solzhenitsyn, Bertrand Russell to Immanuel Kant, Albert Schweitzer to Peter Medawar, Albert Einstein to Macfarlane Burnet and a host of others referred to throughout his own text. You will also encounter prose, poetry (including J.B.S. Haldane's *Cancer's a funny thing*), haikus and rhymes. Many of the quotations will remain etched in your temporal lobes long after you have put aside his books. Here is one example: 'Every hospital should have a plaque in the physicians' and students' entrances: *There are some patients whom we cannot help; there are none whom we cannot harm*—A.L. Broomfield.'

He remained a child at heart up to the very end of his life. Simplicity governed every action. He continued to marvel at the structure and function of a leaf, the beauty of a bud, sunrise, sunset, clouds… He often quoted Joyce Kilmer's evocative poem *Trees*.

He could not understand the need for the trappings of power and wealth, especially when they were obtained with total disdain for scruples and ethics. Pomposity evoked dismay in his mind. He continued to use the suburban train and the public bus right up to the very end.

An utter lack of self-consciousness made him a greatly sought companion and speaker. He had the gift of being on the same plane as the person with whom he conversed—be that individual a child, a humble staff member or an exalted academic. He rarely used notes when delivering a lecture as his prodigious memory enabled him to produce fact after fact with appropriate references. He could not help interjecting humour at every stage and when the setting was informal, would also burst into an impromptu song that soon had the audience clapping along with the rhythm.

In recent years, when visiting relatives in America, nothing pleased him more than working in a workshop owned by a cousin for repairing automobiles. Rolling up his shirt-sleeves, diagnosing the fault, dismantling the engine and setting it right gave him a satisfaction denied to him when visiting fashionable malls or soirees in fashionable homes.

His suggestion that each teaching institution should have a *Department of Ignorance*, where students are taught about what we do not know on a variety of commonplace and important topics has not found favour even in his own *alma mater* up to now. His recommendation had three intents: (i) to ensure that students were made aware of the imperfections in medical science; (ii) that students learn to question statements by teachers, textbooks and papers in medical journals and make independent assessments of them; (iii) to highlight areas where further studies may improve our understanding with possible benefits to our patients.

History will judge whether he was a man far in advance of his time.

SUNIL PANDYA
*Department of Neurosurgery*
*Jaslok Hospital*
*Mumbai*
*Maharashtra*

## Remembering Manubhai Kothari

I first heard about Manu Kothari when I was in my ninth standard. He was my father's classmate in Seth G.S. Medical College, Bombay (now Mumbai) and was a very good friend as well. What I learnt was 'Manu was extremely systematic and organized as a student. He was so well prepared that even during exams, he went for his daily evening walk.' It was also around the same time I learnt that he had radical views on cancer and had had his views published in books with London-based publishers. The most interesting thing about the man, though, was the fact that he had described a sign in medicine—as a medical student! Clearly, he was a man I had to meet some day.

Years later, I met the man himself and found a jovial and humble man. He was, I was to discover over the years, an incredibly well-read man with an interest and understanding in just about every field. The last time we met was when we spoke on the topic of euthanasia at a conference. Two of the three of us spoke for the proposition using data and science, but it was the third—Dr Kothari—who literally skewered the speakers for the opposition by delving into the Upanishads and taking a philosophical explanation as to why euthanasia should be practised.

On my bucket list, when I was a medical undergraduate, was to write and publish a book review some day. That got crossed off the bucket list when in 1994 I reviewed the layman's version (entitled 'The other face of cancer') of his monumental work *The nature of cancer* in the pages of this *Journal* (1995;**8:**241–2).

When, some years ago, I had to deliver a lecture to medical students on medical student researchers, an obvious person to talk about was Dr Kothari. I asked him about his discoveries and he replied, on e-mail: 'In December 1955, having just passed my first year bachelor of medicine-bachelor of surgery exams (MBBS), I was perusing Hamilton Bailey's *Physical signs in surgery*. I was yet to enter the hospital wards and start seeing patients. Seeing the pictures in the book, two thoughts occurred to me. In inflammations of hip, the fixed adduction deformity can be measured visually without having to move the patient's painful limb as the text advised. All that involved was to measure visually the angle between lines joining the anterior superior iliac spine and the deformed position with a line drawn bang horizontally from the spine on the normal side.' Also 'inguinal hernia in the male and the female can be differentiated from the femoral hernia by inspecting the inguino-scrotal or inguino-labial curve. This curve loses its concavity in inguinal hernia but does not do so in femoral hernia.'

He wrote (snail mail!) about this to Professor Hamilton Bailey and was rewarded, in 1960, when, in the 13th edition of *Demonstrations of physical signs in surgery*, a method was described, named after him and with a footnote on his biographical data. A few years later, when Dr Kothari's surgery chief, was to visit London, he (MLK) wrote to Dr Bailey, who then sent his Rolls-Royce to pick him up!

Dr Kothari questioned everything in science—cancer and cardiology being his favourites—and sometimes went just too far, I felt, to prove a point. As my father explained to me, 'He's hardly going to drive home a point if he's diplomatic.' His last paper, co-authored with Dr Lopa Mehta, published in *Indian Journal of Medical Ethics* (2015;**12:**41–3) just after he passed away rubbished the cholesterol hypothesis and the use of statins and denounced 'lipochondria'. It was typical of the man.

SANJAY A. PAI
*Columbia Asia Referral Hospital,*
*Bengaluru, Karnataka*
*sanjayapai@gmail.com*

---

## *Obituaries*

Many doctors in India practise medicine in difficult areas under trying circumstances and resist the attraction of better prospects in western countries and elsewhere. They die without their contributions to our country being acknowledged.

*The National Medical Journal of India* wishes to recognize the efforts of these doctors. We invite short accounts of the life and work of a recently deceased colleague by a friend, student or relative. The account in about 500 to 1000 words should describe his or her education and training and highlight the achievements as well as disappointments. A photograph should accompany the obituary.

*—Editor*