

### OUR GUEST EDITOR



**Prof. P.K. Dave**

*Prof. P.K. Dave retired from AIIMS in June, 2003 as Director; he started his career as an undergraduate of the 1<sup>st</sup> Batch. He has been a committed professional, a reputed Orthopedic Surgeon and a fine academician. During his stint as the Head of the Dept. of Orthopedics, he developed and nurtured all sub-specialties of orthopedics and made it a centre well-known for state of art surgery in all fields. During his tenure as Director he laid a major initiative in an all round development of infrastructural facilities, all the modern equipment and newer facilities like trauma centre, de addiction centre and a dental college. He took part in all the corporate activities of AIIMS as a hostel superintendent, medical superintendent. His period of Directorship was marked by a major thrust in academics, research and patient care. Along with it this period was also marked by restoring peace and harmony among all sections of the staff. He was the editor of Indian Journal of Orthopedics for six years, Vice-President of Delhi Medical Council, President of Association of Spine Surgeons of India & President of Delhi Orthopedic Association. He has been a Member of the Governing Bodies of Medical Institutes of National Importance (PGI, AIIMS, NII, IGIMS, NIIHF, NEILGRIHMS & SGPGI). He has delivered many orations and has been a Chief Guest at two convocations. The orations have been : Dr. B. Mukhopadhyaya's Oration at the COE 2010 organized by Orthopedic Research Education Foundation & K.S. Hegde Medical Academy on 16<sup>th</sup> September 2010 at Mangalore; Dr. P.N. Chhuttani's Oration during the Current Medical Journal of*

*India in association with Govt. Medical College & Hospital, Chandigarh on 24<sup>th</sup> April, 2010; Prof. P. Chandra Memorial's Oration delivered during the Annual Conference of Delhi Orthopedic Association at All India Institute of Medical Sciences on 10<sup>th</sup> January, 2010; Prof. M.L. Chatterjee's Oration delivered on July 2009 at West Bengal; Dr. P.K.Sethi's Oration delivered on January 2009 at Bhubaneswar, Rajasthan; Dr. D.R. Mahajan Memorial Oration at the Annual Conference of the Indian Chapter of the American College of Surgeons in 2005; Disability Human Rights, Law & Policy Oration (National Summit) at JNU, New Delhi on Dec, 2004; Late Prof. T.P. Srivastava Memorial Oration in Nov. 2004 at Delhi; Dr. B.C. Bansal & Dr. C. Prakash Oration in Nov. 2004 at Delhi; Shri. D.S. Mudvari Oration at the VIth International Surgical Conference of Society of Surgeons of Nepal in Nov. 2002 at Nepal; Dr. Pinnamaneni Narasimha Rao Endowment Lecture in 2001 at Guntur, Andhra Pradesh; Shri B.P. Koirala Memorial Oration at Dharan, Nepal on Sept' 2001; Shri P.C. Gupta Memorial Oration of the Association of Surgeons of Haryana on Nov. 2000 at Haryana; Dr. L.H. Lobo Memorial Oration at Ludhiana on Oct'1998; Prof. B.B. Ohri Oration at the 17th Annual Conference of M.P. Chapter of IOA at MGM Medical College, Indore on Oct'1998; Sh. Moolchand Khairati Ram Memorial Oration in 1998; Shri O.P. Goel Oration at Meerut in 1995; Shri B. Mukhopadhyaya Oration at the Annual Conference of Bihar Orthopedic Association at Bihar in 1994; Dr. N.D. Aggarwal & Mrs. Satya Aggarwal Trust Oration at Patiala in 1989. He has been bestowed with many honours : T.P. Jhunjhunwala Charitable Trust Award for outstanding contribution in the field of Medicine in 1997-1998; Shreshtha Shree Award from Delhi Citizen's Forum for civil right in Dec'1994; Chief Guest Award by AIIMSONIANS of America in 1995 and 1997; He was awarded Padma Shri by the Govt. of India in recognition of his services in the field of medicine. He was also conferred: Awarded Fellowship of Royal College of Physicians and Surgeons of Glasgow (FRCS, Glasgow) in 2008; Honorary fellowship of Indian Orthopaedics Association for his meritorious services to Indian Orthopedics in 2008; The fellowship of the Indian Academy of Yoga, Varanasi; Awarded Fellowship of National Academy of Medical Sciences in 1992; Awarded Fellowship of International Medical Science Academy in 1992; Fellowship of International College of Surgeons Indian Section; He was also nominated as Emeritus Professor of National Academy of Medical Sciences. He was also appointed as Honorary Surgeon to Honorable President of India. He has many publications to his credit both nationally & internationally. He has been the President of National Academy of Medical Sciences and Indian Society of Biomechanics. He is the Chairman of National Accreditation Board for Hospitals & Health care. He was the Chairman of the Committee on Disaster Management of the Human Rights Commission. He was also the Member of the Committee of the University Grants Commission for review of granting of the deemed university status. He is presently working at Rockland Hospital and is the Chairman of its Advisory Board and has made it a state-of-the-art hospital with ethical practices. He is a member of the Executive Committee of Indian Red Cross Society. He was nominated Member on the Board of Directors of HSCC and Member of the Managing Committee of AAUI. He was nominated as a member on the board of Directors of Hospital Services Consultancy Corporation for planning of hospital & for advising Automobile Association of Upper India on prevention of accidents as a member of its managing committee. As a chairman of the advisory board of National Book Trust he was responsible for granting of publication of Medical books by Indian authors. He has excelled as an administrator, as an academician, a research worker and a versatile orthopedic surgeon.*

### Editorial

The practice of orthopedics has changed considerably ever since the word orthopedics was coined by a French doctor Nicolas Andry in 1741. The word orthopedics was derived from ortho means straight + ped means child. At that times orthopedics consisted mainly of correcting deformities particularly in children. From then onwards the orthopedics developed slowly in Europe & Britain. In Britain Hugh Owen Thomas (1834-1891) from Liverpool practiced the principal of immobilization and deformity correction. His nephew Sir Robert Jones (1857-1933) suggested many surgical techniques for treatment of injuries, fractures and deformities. In the subsequent periods orthopedic surgery got a boost by the development of concepts of asepsis, advancement of anaesthesia and roentgenography. Infection was a major deterrent in achieving decent results. The concept of asepsis and hygiene vastly improved the results of surgery. This was greatly aided by the development of antibiotics. The newer imaging techniques like CT scan, MRI & pet scan resulted in more accurate diagnosis and treatment. The two world wars gave a major boost to the development of orthopedic surgery, because of the tremendous need to treat the injured. During the 20<sup>th</sup> Century orthopedic surgery consisted of treatment of injuries & deformity correction. Nearly three to four decades back there were a large number of cases of injury but it was more or less simple injuries which could be effectively treated; with the advent of increasing by fast traffic, rapid industrialization, mechanization of farming and social tensions leading to highly velocity trauma leading to compound fractures, open wounds with or without vascular injuries. The treatment of wounds led to developments of various surgical techniques. The initial treatment of wounds by early debridement & closure of wounds by various plastic surgery techniques and the development of ilizarov technique which provided immobilization as well as care of wounds by open methods. The ilizarov technique was also extremely useful in compound injury with bone loss. Ilizarov technique was also useful not only in the healing of fractures and but for correction of deformities and limb equalization. The developments of orthopedic surgery resulted in major advances in the correction of deformities particularly spinal deformities like scoliosis and various types of Arthroplasties. In this connection the name of Sir John Charnley stands out. Earlier various biological materials were used for interposition arthroplasties; later on various metals, other synthetic material like teflon were used but it was John Charnley who gave a concept of Arthroplasty by reducing the friction between the articulating surfaces. He produced metal and high density polyethylene as articulating surfaces for reduction of friction; development of bone cement methylmethacrylate acted as a interface between the bone and the metal prosthesis. This was a major advance in the field of orthopedics. Subsequent developments in the design and materials of various types of prosthesis was based on the original concepts of John Charnley. Japanese surgeons developed arthroscopes based on the principles of fibre optics due to which minimally invasive surgery like arthroscopy could be carried out. Initially it was mainly diagnostic but later on the repair of various ligaments and cartilages was facilitated by the developments of these arthroscopic techniques. Another area which saw major development in the field of micro surgery in injury sustained in industrial and agricultural segments. It would not be out of place to say that maximum developments took place during the last few decades. There is an impressive rapidity with which newer implants and instruments are being developed. But I would like to add a word of caution. Instrumentation in orthopedics may not be the be all and end all. They have to be used judiciously in a rational manner.

P. K. Dave