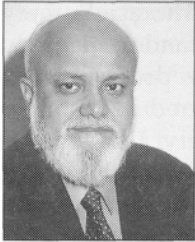


## Passion and philosophy of cardiac surgery



Dear colleagues, past presidents, teachers and invited guests, my heartfelt greetings to all of you on this occasion of the 49<sup>th</sup> annual conference of our association. I thank Dr. Prasada Rao for his gracious introduction. He is certainly a hard working person and prompt in the affairs of his choice. I wish to thank all

the members of the Indian Association of Cardiovascular and Thoracic Surgeons for giving me the honor and the privilege of serving as your president for the past one year. I had not imagined at the beginning of my career nor during the course of the years that I will be standing on the same platform from where our mentors and models had addressed. A teacher is certified by the students he trained as My students Dr. Khandeparkar, Dr. Tendolkar, Dr. Joshi and others, made me sign the nomination papers for the presidential contests. I wish to thank them all on this occasion.

We deal with the most vibrant and dynamic organ and our discipline is one of the glamorous branches of medicine. We are privileged to touch hearts, the hearts of The rich and The poor, the hearts of all ages, sizes and colour, but all of them are either abnormal by birth or diseased. We are blessed with the art of making the heart sound, the art of mending damaged hearts and the art of remodeling abnormal hearts and even change hearts. We must repair these hearts in such a way that there is freedom from cardiac re-intervention and further monetary liabilities. If we can succeed in the “freedom from re-intervention”, we will take this discipline of medicine to great heights. So let us all pledge today to extend this wonderful and magical art and skill of cardiovascular and thoracic surgery for the betterment of our patients. We have a galaxy of surgeons amongst us who possess a grit, determination, and devotion to their work. Excellent quality work is being done all over the country in public hospitals as well as in private institutions with results that are comparable with the best in the world. And I am glad to say that we have an edge over others in one aspect – “in the matter of hearts” that is the personal touch and relationship with our patients. We find that our patients remain ever grateful to us and put us on a high pedestal. We therefore have to live up to this faith while performing the surgery and

later on while looking after them.

Each one of us, at one time or other have been motivated and supported by individuals who have truly made a difference in our lives. Of particular interest is the close and often intense interactions between the teacher and the student. We have been blessed and privileged to get proper guidance and opportunities at the right time and from the right personalities. Here I wish to acknowledge those individuals who have profoundly influenced my life and in making my career.

First of all, my parents who imbibed in me the idea of becoming not only a doctor but also a great doctor, by their constant emotional and psychological support. They constantly reminded me that I have to become like Dr. B.C. Roy of Calcutta and Dr. S.K. Sen of Delhi-both, legendary physicians of those days. Dr. Satubhai Trivedi, Professor of cardiovascular surgery at NHL medical college, Ahmedabad, under whom I was working, as a registrar was a very stimulating and provocative teacher. He was deeply committed to teaching the art of surgery. He would not hesitate to cut the skin stitches that appeared little tight. I learnt the basics of tissue handling from him.

My journey as a cardiac resident began at the Seth G.S. Medical College and KEM Hospital in February 1973, exactly 30 years ago. I came to Bombay with, my last pay as a registrar, with one and only one big ambition, which later became an obsession - to become a good, rich and famous cardiac surgeon.

As a first MBBS student at Ahmedabad I, had seen Dr. P.K. Sen, then Director of Surgery at KEM Hospital, showing a movie with multiple heart transplants in a single dog. His great towering personality had magnetized me and attracted me to KEM Hospital. After that there was no second thought or looking back. I worked relentlessly, swallowing all my pride while Dr. P.K. Sen showered abuses. Nothing was good enough for him - not even a ‘good morning’, as he always responded to our “Good Morning” with – “What is so good about this morning?”. Once on rounds he remarked, “house surgeons have to be seen not heard”. Many residents left his service midway and he casually remarked “If they can’t take up this trauma from me they are not fit to become cardiac surgeons”. This kind of treatment resulted in making me a strongwilled perfectionist. He was my first role model. Dr. sen had started the Department of Cardiovascular and Thoracic Surgery at KEM Hospital and even went on to perform

a heart transplant, the 6<sup>th</sup> in the world. He also coined the term "snake heart" for an operation of multiple needle holes in the infarcted area of heart. Today it has taken the shape of transmyocardial laser revascularization. Dr. P.K. Sen oration by our association is a fitting tribute to this great teacher.

Dr. G.B. Parulkar, who succeeded Dr. P.K. Sen as head of the Department of Cardiovascular and Thoracic Surgery was a great showman of all times, but a superb teacher and a close friend of all residents. He would keep his residents happy at any cost. He encouraged me, gave me ample surgical opportunities to develop the skill and confidence and was responsible in sending me to USA as a fellow with Dr. Dudley Johnson.

Dr. Sharad Pandey, who was Professor and chief of the second unit at KEM Hospital infused among his students and residents a healthy competitive spirit and one - upmanship, which I remembered all through my practice.

Dr. Dudley Johnson, one of the three pioneers in the coronary artery surgery in USA, was my mentor in every sense of the word. His scholarly and uncompromised approach to Coronary Artery Bypass Surgery has had an enormous impact on my approach and attitude towards surgery. I learnt the techniques, principles and intricacies of Coronary Artery Bypass Surgery from him and put it into practice. I was fortunate to work with this pioneer and coined the term "International GURU of Coronary Surgery" for him. When I was invited as one of the two of his favorite students to raise the toast on the occasion of his receiving the "Life time achievement award" from the University of Wisconsin in USA. The other student was Dr. George Reul, more than him I felt honored on the occasion.

I should not forget to mention Dr. S.K. Munshi, Professor of Cardiology at KEM Hospital, who was instrumental in bringing me into private practice to offer my services to the rich and privileged community.

Finally I want to acknowledge my wife, Mina, and my children, of whom I am extremely proud. They have brought much happiness into my life. My wife's support, her sacrifices, her optimism, her patience, her cheerful assumption of many family responsibilities during the last 30 years has made it possible for me to pursue my professional interest to the fullest.

I owe my gratitude to all these personalities, because of whom I am standing here today.

I have worked as a teacher and professor in G.S. Medical College, KEM Hospital for 10 years and now for the last 20 years I am a solo practitioner. I want to share with you my views regarding the passion and philosophy of cardiac surgery especially relevant to the

younger generation of cardiac surgeons and aspiring residents, who have the passion for the same. So my message in the presidential address is PASSION AND PHILOSOPHY OF CARDIAC SURGERY.

The specialty of Cardiovascular and Thoracic Surgery has existed for approximately 70 years, and particularly in the past 20 years extraordinary progress and remarkable achievements have occurred in virtually every aspect of this faculty of surgery. I have been fortunate to have spent the last 30 years in this field and have witnessed the evolution of cardiac surgery from closed mitral commissurotomy from four minutes hypothermic arrest to current open heart surgery, from filter in the line, to non filter era of neurological deaths, from ischemic fibrillation, to cardioplegic arrest, from prosthetic valves to biological valves, from stent to stentless valves, from static heart coronary bypass to beating heart off - pump bypass, from venous to arterial grafts, from minimally invasive to robotic heart surgery. I am sure a day will soon come when a surgeon will be operating from his office or from a place as distant as the moon.

These are exciting times of technical innovations in the practice of Cardiovascular and Thoracic Surgery. Technological breakthroughs occur on an almost daily basis. Molecular biology is rapidly making its way into our specialty. Advances in bio - engineering will, in the not too distant future, result in the generation of whole new organs like hearts and lungs from primitive cells of tissues like blood vessels, valves and heart muscles. It will be possible to transplant such organs into human beings without any chance of their being rejected. Permanent mechanical hearts and possibly even immunologically modified xenograft hearts, lungs and other organ are likely to become available for implantation in the next few decades. Some, however, may remark that "Mechanical heart transplant is the Dracula of medicine".

Life expectancy has increased in the last 30 years and the potential exists to increase it even more in the 21<sup>st</sup> century. Death rates from coronary heart disease have declined. Coronary Artery Bypass Surgery has played an important role in reducing these deaths. It has not only improved the quality but also increased the good productive years of life. Technical advances in suture material, such as monofilament sutures and in optics such as magnifying loupe, theatre lights, and use of headlights are the greatest assets, which have brought about a revolution in our branch of surgery. This has made it possible to perform Coronary Artery Bypass Surgery with more precision and perfection making it a routine surgery in today's life.

Cardiac surgery is so fascinating that I have come across parents telling me that their sons want to become cardiac surgeons, young collegians saying the same, even to the point where my own son wants to become a cardiac surgeon. They are enamored by the status, the name, the fame and the money a cardiac surgeon earns, but they are oblivious of the number of years of hardship one has to undergo, day in and day out, not knowing whether it is raining or snowing outside the OT or ICU to establish oneself in this position. Here I wish to tell all these aspiring students that "Nothing is impossible to a willing mind" - nothing in life is impossible if you have a strong willpower, determination and you are focused on your set goals education in Cardiovascular and Thoracic Surgery must receive greater emphasis. Rapid changes and progress are occurring in Cardiovascular and Thoracic Surgery. Lack of newer gadgets and modalities to cope up with the advanced technologies has been the biggest hindrance for learning these newer advances. For this reason one may work abroad and bring in the latest but relevant gadgets and technology to our country.

Apart from imparting the skills of surgery, the teacher must impart the values, the beliefs, the morals, adherence to ethics, the patient doctor relationship; and also, professionalism, commitment, and philosophy of cardiac surgery. We must focus more on our responsibilities, integrity and duty. Computer - assisted and internet - based learning activities should be an integral part of this process to enhance the educational experience of residents. With CD ROMs, websites, and other information technologies it will be possible to offer to all residents' exposure to lectures and demonstrations by prominent cardiovascular surgeons. This is an exciting but definitely practical concept to enhance the existing surgical curriculum in many ways. Dr. Sampath Kumar should be complimented for taking a keen interest in this aspect and we will soon have a video library of the Association.

At present the most difficult part in life is after finishing M.Ch. There is a big question mark - what next? Education is not as challenging as further prospects of settling in life are. Practice in Cardiovascular and Thoracic Surgery is becoming increasingly difficult and competitive with more surgeons and more centers opening up all over the country. Getting into the faculty positions in medical institutions inspite of the vacancies is difficult since these posts may not be filled because of financial constraints or other government policies. In addition, these positions do not seem to be attractive or lucrative.

My suggestion to young M.Ch. "fully qualified"

doctors will be to expose themselves in the country and abroad to different surgeons and teachers and institutions. Getting a degree from a university does not necessarily imply a complete training. I strongly feel that this Association should fund many more scholarships for residents and young M.Ch. students to visit and work at different centers for varying periods to learn more about the art of surgery. Hence to my successor I will suggest to focus more on Association activities towards academics. With this idea in mind, we introduced in this year two CME programmes as a part of the midterm conference at Mumbai and Jaipur. It was free of cost for the residents and also included hands on training at the Johnson and Johnson animal laboratory.

After many years of training one should start independent practice, and let me tell you that India is an ocean and if you work hard and with honesty, there is no shortage of needy people who will come to you for help. With patience you must take every step and climb the ladder. "Don't jump" in to practice. If you have a good and sound foundation you have to succeed. A Chinese proverb says "Do not be afraid of going slow, be afraid only of standing still". Establishing one's credentials is first important feature before putting a price for the job. I had focused my mind how to stop people from going abroad for Coronary Artery Bypass Surgery. For this, it is essential to improve results first, by all means. Every surgeon should introspect, find the faults in oneself and improve. Do not repeat the mistakes or accept them easily. To a great extent I have succeeded in stopping the exodus of patients from going abroad for surgery from Mumbai. Practice surgery as a worship. It is the best form of meditation. Become a student of Martial art and get your mind trained to be focused for a job with fullest concentration. Then one can reach great heights. You will be able to read so many things by just watching the heart beat and you will be able to judge which stitch will cut through and which one will bleed. It is a great feeling. All the rest of the worldly things follow, one doesn't have to run after it at the beginning of the career. Trust me, one gets it if one deserves it.

We should encourage our juniors to face bravely the challenges in practice and never give up as at times disappointments and disillusionment can take the toll. Some times the ethical and moral principles are challenged which may dissuade the best and the brightest young doctors. We seniors must remain positive role models and committed mentors in every aspect, to the upcoming surgeons and encourage them in every possible manner. Over the years, there is a gradual decline in the number of surgeries done for rheumatic heart disease and congenital heart diseases.

At the same time the number of patients requiring coronary intervention is steadily increasing.

However, since the last couple of years cardiologists have gradually encroached upon the territory. There is a steady and continuous decline in the number of patients referred for surgery since the advent of angioplasty, as more and more multi - vessel angioplasties are being done. In the 1980s angioplasty reduced single or double vessel cases. In the 1990s, the use of stents was an added attraction of angioplasty, and since 2000 medicated stents have become available. We are all fully aware that these cannot match the results of Coronary Artery Bypass Surgery even though they exceed the expenditure of Coronary Artery Bypass Surgery. These challenges by the cardiologists should be considered as healthy competition and should be an incentive for us to improve our results and technique and take up more challenging cases of diffuse disease, end - stage cases and find newer surgical techniques such as endoscopic surgery, minimally invasive cardiac surgery and Robotic surgery. Remember the Zen of martial arts – “It is always better to improve and strengthen your own line of knowledge and practice than to try and cut your opponents line”.

It is imperative for surgeons to develop skills in public relations and the art of counseling. It is important to spend more time with your patients before surgery so that you don't need to spend more time with them after the surgery. Moreover patients do find out the credibility and experience of the surgeon. Hence, it takes a long time for a surgeon to establish himself in practice. I remember that for almost 10 to 15 years I was asked by the patients about the number of surgeries I had performed and what my success rate was. I did not mind answering such questions. There was a period when patients used to ask whether the hospitals were fully equipped to perform Coronary Artery Bypass Surgery and if the postoperative care was efficient and satisfactory. Rich patients were going abroad but today the scenario has reversed, patients who were operated first time abroad are coming here for redo surgery to us without reservation. This is creditable. Success in professional life requires an absolute honest approach, integrity, self - confidence, total commitment and a staunch desire to overcome any hurdle. It is the atmosphere in your working place during your formative years which influences and makes up your personality. The more the opposition and difficulties you have to overcome, the stronger a professional you become.

In KEM there was always a feeling in the air to perform more and more surgeries and beat other units

in the number of surgeries, and in the results. Everybody was involved in number game and speed of surgery. It gave me an impetus to perform more and more although I never made it the motto of my career. Initially in my practice, I was operating from morning to the early hours of the next day, performing 4 - 5 cases per day, without compromising on the quality of work thinking that each success of my performance is one step to climb up the ladder of professional heights.

My suggestion to all youngsters will be - never to cut corners, even if the last patient requires six grafts we should try and do seven but never end up in doing less number of grafts and console the team by saying that it was not required or would not be beneficial to the patient. We must introspect our performance and should never cheat oneself or the poor patient. I learned this from Dr. Johnson and this has become my second habit.

One should never be satisfied with one's own performance, otherwise one become's static. One should always think of further achievements as science is progressive and there is no end to the learning process. It is ideal to share one's experiences and ideas with others and to learn from other's experience as well. Do not be adamant and keep pressing on your point. Empty your cup of knowledge, if you think you are full of knowledge then there is no space to pour further knowledge into the cup. It is important to be a perfectionist. Do not hesitate to accept a bad stitch, cut it off and take a new one with perfection. It is not what you do but how you do it that is important.

It is necessary not to compromise professional behaviour at any stage. Never get dictated by the patient or other physicians. Always have a strong conviction for doing what you feel is right. This at times may give you a setback, but remember, these are temporary phases and will soon give way to you dictating your terms and conditions, and people accepting those. You should always believe in yourself.

It is again very important to remain cool and composed in the event of complications and mishaps. A little presence of mind at that stage can certainly overcome the problems. You may further mess up the situation if you get perturbed or agitated. One should be one's best critic. At the end of the day spend a few minutes in introspection about where you have gone wrong, how best you could have avoided the complication. This will improve your skills and approach to surgery and will make you better prepared to tackle complications. I learnt this from Dr. Johnson who used to discuss many a times what went wrong with the surgery and I used to be amazed as to - how

simple this man was and what material this pioneer is made up of. Failure in surgery is a great leveler.

Even in these days of the consumer activism, one should have the courage to perform what is right, if it is scientifically correct. Unless you start something new, you cannot become an expert. As it is said – “Nothing ventured, nothing gained”. Of course, one should have 100% confidence in one’s own ability. Deep concern about the quality of service and patient care can only be put in to practice if we consider ourselves accountable, since it is said that a patient is a good judge of the medical care he gets. This would enhance surgeon's confidence and comfort and eliminate the possibility of facing the consumer forum.

When I started LIMA RIMA ‘Y’, about nine years ago, there was a lot of criticism, but I kept performing it against all odds. I presented my first paper at the Saibaba Institute of cardiac surgery at Puttuparathy. Not many people took it seriously. Since then, consistently every year I have been presenting my data and experience at National Conference and every time I was questioned “Why all eggs in one basket?” It is nice to see today that nobody talks of eggs or basket and many centers in the world have started performing LIMA RIMA ‘Y’ technique. Also, I have given impetus to the use of Octopus in the beating heart surgery by showing films and operating in many centers in the country and abroad. I feel proud of introducing these new techniques. My conviction helped me in achieving this.

One should ventures is taking up medicine and particularly Cardiovascular and Thoracic Surgery only if one has a real PASSION for it. One will have to completely immerse himself in the subject and

continuously think of how to better one’s performance, how to incorporate newer technologies and move with the time and how to take up new challenges in order to give maximum benefit to the patient. This may involve sacrificing other aspects of life. As in my case, it was my family life. Mina will tell you about my coming home late only to go back for an emergency case at night and not being available for family functions. But if one wants cardiac surgery as a profession then it should grow into you and be a part of your system. These sacrifices are the professional hazards one has to face. I have always said - Surgery is my first wife.

Friends, I reiterate that cardiac surgery is one of the most lucrative branches of surgery and many young doctors are lured towards it. Today, surgery is a fusion of art and science. Let us aim at a strong commitment to promote knowledge, education, research, excellence in work and attitude and most of all work with the goal of improving the quality of patients' lives and thus making their lives fruitful. The most important objective for all of us today is to contribute to the national health by promoting heart surgery. Let us envisage a brighter future for our faculty and country. Friends, I wish to quote a statement by Dr. Denton Cooley. When asked whether he attributes his success to luck, he replied –“ The harder I work, the luckier I became”. Let us make this the motto of our lives.

Friends, I wish to thank you all for your gracious presence and kind support and pray to the almighty for his blessing for our association.

Sudhansu Bhattacharyya