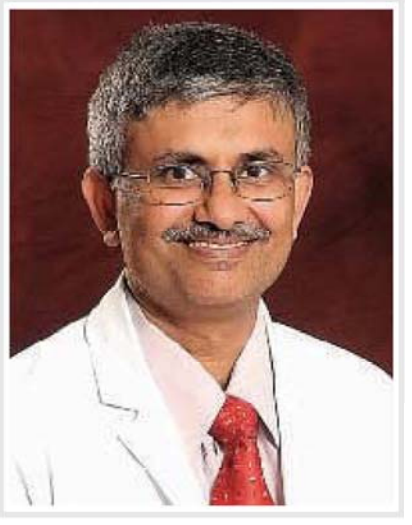
Dr V Ravindra Bhat

The Game Changer of Trauma care

The Story of our Relationship

Dr. S. Raja Sabapathy



Dr. V. Ravindra Bhat

1963 - 2012

Chief Anaesthesiologist (1993 - 2012)
Ganga Hospital
Coimbatore, India

Why this Booklet?

This is not just a tribute of a surgeon to his anaesthesiologist but a tribute to a kindred spirit.

Bhat helped us create a very special system for trauma care and develop trauma reconstructive surgery of the highest order in India. Cost of care was kept down and quality of emergency care kept high by his skilled use of regional anaesthesia for patients on arrival. Upper limb nerve blocks were performed with more than 95 per cent success at a time when nerve stimulators and ultra sound assistance of this process were yet to become common place. What he achieved might well be considered normal, or routine, now. What made Bhat's level of success special, particularly valuable and out of the ordinary was the period when it was done, and the efforts that were needed to do it. If one were to honour him only for his anaesthetic skills, this would be to fail to do justice to his efforts. He took ownership of the problems that came his way and provided massively efficient care to many severely injured persons, when such care was far from the norm here. When one looks back on the growth of any institution, there will always be a few people who put their noses to the grindstone more than others and moved the edifice forwards. Bhat was one such person for us. For him, the task at hand counted more than anything else. Passion and commitment to patient care came before personal pleasures. When this was combined with his enormous skills, it hugely extended the boundaries of care.

Replanting a hand for a patient who also needs a craniotomy for extradural hemorrhage is possible now without undue difficulty in many places worldwide. The same exercise becomes a challenge when there is no in-house availability of CT scans, a CT scan can only be done a kilometre away, and the only centre that can replant the hand is here, where one is standing! Transport, timing, sequence

of procedures and follow up all become a challenge. Lack of infrastructure is compensated by initiative and hard work, safety is ensured by extra-ordinary attention to detail. Some of us who are still working now are fortunate to have been around at the time when the systems of care for our trauma patients were created and standardized. In years to come, the process of creating these may be forgotten and the people who made it possible may just become names. However, I am sure that, if we wish to continue to be trusted as the safest place to go after a major injury, this obsessive, near religiously fanatical adherence to the core values invented at that time must be remembered and retained.

The present day doctors in our unit do not have to face these logistical challenges and the patients also do not have to jump through so many hoops. What is important today is that, in our more sophisticated set up, we retain the same enthusiasm to make difficult things happen, with the same generous and self-denying input. This booklet is written for this reason. It is written for our sons and daughters and all the people who will work with us in the future. Maybe it will serve as a signpost to any youngster who graduates and dreams of making a difference to the lives of ordinary working people. If that happened, even only once, not only would the hours spent writing this tale have served their purpose, but they would serve as a fitting tribute to the years of days and nights spent by Bhat pushing the boundaries of patient care under the most difficult of conditions and with such astonishing success.

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Foreword

At a time when the medical profession is beset with so much consideration of cost – whether cost for individuals or governments of employing our services, or cost to ourselves and our families of pursuit of a career in medicine – the tragic death of this good man is a timely reminder of why doctors become doctors. It is not to become rich but to try to our very best to cure, or at least ameliorate, the effects of disease and injury on our fellow human beings. The selflessness of the first year medical student can harden with time and this premis for our life choice may become blurred by other considerations, and even forgotten with time. It is clear from this tribute, by his friend and soulmate Raja, that Dr Bhat never deviated from the primary aim. That such an example of prolonged dedication to our calling should be taken from his work so early, too early, is God's choice and cannot be explained.

In this tale is also the story of how the dedication of two men and their loyal helpers, by application of sound and principled medicine and shear hard work, created an oasis of proficient calm in the unpleasant world of major limb trauma. Over their working lifetimes, they have made their unit a model to the world of how these injuries can be treated to retain functioning limbs and without amputation, the recourse of surgeons for millennia and still the end-point of these injuries in many, perhaps most, parts of the world. That they have also instilled their philosophy into the minds of the next generation of surgeons and anaesthesiologists to work together to this common cause should ensure the survival of their achievement, but only if those who follow continue to remember the example of Dr Ravindra Bhat.

David Elliot MA, FRCS, BM, BCh
Consultant Plastic Surgeon, Chelmsford, UK
President, British Society for Surgery of the Hand, 2005
Editor, Journal of Hand Surgery (British and European Volume), 2005 - 2008

A Tribute

Paul Manske once said to me that "Life is not about creating opportunities, but in recognizing them when they present themselves to you". Dr Bhat was a wonderful example of this philosophy. He was quiet, humble, pious and inward looking. He led by example, as does his colleague S Raja Sabapathy. How lucky they both were that they found one another. How lucky am I to have known them both.

Martin I Boyer, MD, MSc, FRCS(C)
Carol B and Jerome T Loeb Professor of Orthopedic Surgery
Washington University School of Medicine
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“They alone live, who live for others”

- Swami Vivekananda

The Beginning

It was 11 30 pm on 27th Sept 1993. I had gone home an hour before and was called back to see a patient by the name of Mr Stephen.

The nurse said that a 45 year-old man had come from Ooty and had sustained a very bad injury to the whole of his right upper limb in a tea factory. She said that the dressings were entirely soaked with blood, he was in severe pain and that she was afraid to open it for fear of further bleeding. I came and removed the dressing. Stephen was a nice man, he writhed in pain but made no noise, just clenched his teeth so hard that they could have broken. He had a total loss of the skin of the dorsum of the hand and forearm. The remainder of the forearm skin was degloved, most of the extensor muscles had been avulsed and gone, the wrist joint was open and the forearm bones were fractured. More important, the whole of the wound was extensively contaminated with tea leaves and the tissues were impregnated with tea dust.

He needed pain relief, surgery for haemostasis, a debridement which could, in itself, take 2 hours, stabilization of his fractures and soft tissue cover. Even if we were not providing soft tissue cover that night, he needed anaesthesia for debridement, which was likely to be lengthy because of the extent of the contamination, and for stabilization of the fractures. Tea factory injuries are always bad because of the degree of contamination: in the moving machinery, a combination of tea leaves and tea dust become enmeshed in the tissues.

Availability of anaesthesia services were very different in those days. Very rarely were dedicated anaesthesiologists available to surgeons. Some senior surgeons who had good practices had dedicated anaesthesiologists for their elective surgeries. For these teams, surgery was usually scheduled early in the morning, since both the surgeons and the anaesthesiologists were working in Government

or Corporate hospitals and the surgery had to be completed before the work started there. Those anaesthesiologists were the best in the city. However, because of their daytime commitments, none were willing to do emergencies during the night. We were starting our careers and were just beginning to see and do more procedures every day. Dr Veerappan and Dr Ravichandran, who were in Government service,were providing anaesthesia for us and Dr (Mrs)Rajini, who worked in GKNM hospital, sometimes helped with important cases.

I had to operate on Stephen that night. Dr Veerappan was not in town and Dr Ravichandran had a Caesarean Section waiting for him at ESI hospital. Dr Rajini could not come at night-time. One senior anaesthesiologist, having learned the type of work we intended, asked if I could guarantee that I could finish within one hour since he had to start at 5 am with a gynaecology case. Obviously, I could not give him this reassurance. I tried calling every one I knew: I must have asked at least ten people. All expressed their regrets but could not oblige. Meantime, Stephen's dressings continued to soak through and we did not have a blood bank.

Then, suddenly I remembered meeting an young anaesthesiologist who had just completed his MD at a wedding reception a few days previously. I had written his phone number on a small piece of paper. I searched for it frantically and, fortunately, found it in my wallet. I called and asked him if he could come. He said he would and he reached the hospital earlier than I would have thought possible. He must have driven his motorcycle really fast. Stephen was already on the operating table. The young anaesthesiologist walked in, did not formally give any word of greeting, but only gave me a very faint smile. What he then did surprised me and the nurse. He stood by the anaesthesia machine with closed eyes for a few seconds, praying and meditating, possibly offered salutations to the Boyle's machine, then started the anaesthetic. He was oblivious of anyone around him while he carried out this ritual. I looked at the nurse, she looked at me: both of us were equally surprised. He gave a good anaesthetic, I debrided for about 2 hours and, then, my brother Rajasekaran fixed the fractures. I

continued to suture and readjust the tendons. We started just after midnight and finished in the early hours of the morning. He spoke very little. I asked him a lot of questions to which he answered politely in brief sentences. Somehow, I felt very comfortable with him. He was Ravindra Bhat. *Little did I realize at the time that he would do what he did that night for nearly the next 20 years, helping us to build Ganga Hospital and revolutionize trauma care in this country.*

Stephen was a classic case study of the challenges in trauma care that a reconstructive surgeon faces, even today, and in all parts of the world.

1. Patients come at any time of the day or night without prior information.

2. They need immediate attention for pain relief and haemostasis.

3. Their general condition is often compromised and they need a good and committed anaesthesiologist with high levels of skill **and not any anaesthesiologist.** When the patient has co-morbid conditions such as diabetes, hypertension or heart disease, this factor is even more important.

4. If we are able to get patients onto the operating table early and keep the period of hypotension and hypoxia to a minimum, they do well. Early debridement prevents infection: another reason for fast resuscitation and getting him/her onto the table very fast.

5. Often they need long hours of surgery on arrival which may be followed by many staged procedures throughout the following days. This may stress the surgeon, the anaesthesiologist and the nurses and, also, the infrastructure of the hospital.

As far as surgery for such limb injury patients was concerned, what was happening to patients like Stephen twenty years ago? Usually, under sedation, the bleeding would be controlled and compression bandages applied, and the specialist surgeon would take on the case the next day. Performing major debridements and primary bone fixation in open injuries was not being done on

arrival. If the patient happened to have a vascular injury, the limb required amputation by the next morning. If the soft tissues were is chaemic, surgeons waited for the line of demarcation to declare itself before excising the dead tissue. Not surprisingly, this policy encouraged infection. Results were far from ideal. Twenty years later, we keep addressing the same issues as they still remain the unmet challenges of many trauma care units of the world.

How did we overcome this to create a centre to which more than one hundred surgeons come every year and which is recognized as a model of good healthcare delivery in acute trauma care even to the developed world? *. Although we would call it teamwork, in a team some persons always take the lead and assume more responsibility than others. All great teams start with that '***some persons***', (the power of one) who are so committed and concerned. Others follow the ideology to form the teams. Bhat was that type of person. He continued to treat patients with the same intensity with which he treated Stephen, day in, day out, until the very last patient to whom he gave an anaesthetic, a few hours before he passed away. That passion for work and concern for patients was astounding. Very often, we hear from friends that they want to take early retirement. Comments such as 'it is not worth working so hard' are commonplace in our profession. By contrast, Bhat maintained his passion, love for work and commitment to patient care to the end. Even when patient demands were at their highest, I never heard Bhat say that work is boring.

In our quest to build Ganga Hospital, some institutions have inspired us. Mayo clinic is at the top of the list. Perhaps it is because I read the book 'The Doctors Mayo' during my undergraduate years (bought in the old book shop in Moore market for one rupee!). At that time, the fire in my belly to achieve something credible, kindled by our mother, was intense. In the book, the elder of the two

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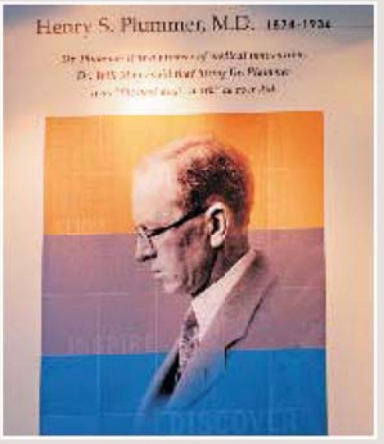
* ***A Travelling fellowship to Ganga Hospital, India: lessons to be learnt. Nakul Kain, Annals of the Royal College of Surgeons, England (Supplement), 2012; 94: 174 - 176.***

brothers, Dr William Mayo, says, " ***The day I did the best and most for the clinic was the day I recruited Dr Plummer'.*** Dr Plummer was instrumental to the growth of the Mayo clinic and so much was his contribution that one of the biggest blocks of the Mayo clinic is now called the Plummer building. I think I will have the same thing to say of Bhat. ***'The day I did the best and most for Ganga Hospital was the day I took in Dr Bhat'.***



A picture of Dr Plummer and the Plummer Building. Mayo Clinic, Rochester, USA.

Taking him in was easy. That afternoon when Dr. Rajini came for the elective operating list, I told her about the new find and said, 'Madam, he appears to be good and nice. I want to encourage him and slowly get him on board.' Madam enquired if he was smiling all the time and conversing nicely, since she knew that I like people with a smile on the face and people who talk. I told her that he did neither, but that his attention to patient care and his attitude to work was impressive. One never gets a second chance to make a good first impression. Bhat made a good one. Madam had the opportunity to see him later and, surprisingly, one day said, ***'he will be the anaesthesiologist of the future'.*** Madam is not known to hand out compliments unless she is convinced. Bhat grew up to make that prophecy true. On 6th May 2012, when we had assembled for Bhat's funeral, Madam told me, 'Sabapathy, going through my mind, like a flashback, is what we talked about twenty years ago after Bhat's first case at Ganga.'

Coming Together

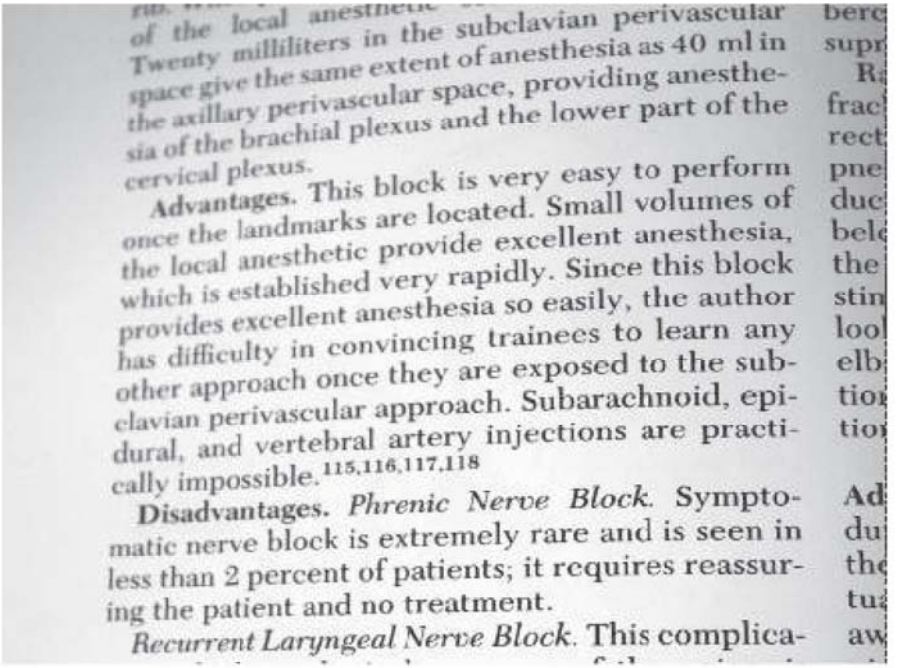
I think it was destiny which brought us together. Dr. Madhavaram, who is presently with WHO, was once a night duty medical officer in our hospital. He is a nice, pleasant and affable person and is also the son of Dr K Balakrishnan, a retired Professor of Surgery of Coimbatore Medical College. He had invited me to his wedding. Since he had been part of our hospital, I really wanted to go to the wedding reception. The wedding reception was at the Hotel Annapoorna between 6 – 8 pm. In those days, we had no assistants and work was grueling. By the time I got out of the Hospital, it was so late that many suggested it was not worth going. We did not have mobile phones then and the only way to know whether the wedding couple was still there was to go and see. I was rushing up the stairs to the fourth floor of the hotel and Dr Bhat was coming down the stairs. I had known him as a good house surgeon and had attended his wedding. He greeted me and said, 'Sir the reception is over, but Madhavaram and family are having dinner inside a partition.' He did not stop with that but added, 'Please come, Sir, I will take you inside'. This was his way: there was no need for him to have done that, but he did. Had I gone up myself,I would have seen an empty hall and I would have gone away. Instead, I had dinner with the bride and groom and talked to Bhat. He told me that he had completed his MD in Anaesthesia, come back and, recently, joined Coimbatore Medical College Hospital. I had known him as a good House Surgeon. For some reason, I have always felt that good house surgeons will make good doctors later. I asked him if he did any private work. He said very rarely, but he did give anaesthetics for Dr CN Ramaswamy, a senior Plastic Surgeon, when his regular anaesthesiologists were not available. Instinctively, I asked for his phone number and put it in my purse. It was that meeting which helped me to find him for Stephen that night. The rest is history.

Beginning of the 'Regional Block' Saga

Anaesthesiologists at that time were not comfortable with regional blocks. Surgeons used to give blocks and, if they failed, the anaesthesiologists would give a general anaesthetic, or supplement the block with sedation. Having worked in the Government Stanley Hospital, where surgeons gave the axillary blocks all the time to emergency cases (at a rate of around 20 per day), I was very proficient in giving brachial blocks and was using them on all the hand surgery cases. I was even proud of the reputation I had gained as a result of my success rate. One day, another surgeon told me that he had an important patient with a minor hand problem and asked if I would help him with a block. It was a shock to me. I did not want my reputation to move in that direction. I gave an axillary block to his patient and decided that it would be the last axillary block that I would give. In fact, it was the last block I ever gave! The next day, I asked the anaesthesiologists to give the blocks. When they were hesitant, I said that if the blocks did not work, they could give general anaesthetics and that I would not mind. I also said that I would absorb the extra cost. I very much wanted to develop their skills and change their attitude, as I felt strongly that this would be in the interest of our patients.

Surgeons were giving axillary blocks using the pulsation technique and rarely gave supraclavicular blocks. When Bhat joined, because of the age difference, I had almost total control over him. He simply did what I wanted. One day I asked him to read the chapter on Anaesthesia in Green's text book of Hand Surgery. It was written by Dr Somayaji Ramamoorthy, an Indian who had settled in Texas. I pointed out to him the lines Dr Ramamoorthy had written about an approach called the 'Subclavian Perivascular Approach.' It ran like this:'*Small volumes of the local anaesthetic provide excellent anaesthesia which is established very rapidly. Since this block provides excellent anaesthesia so easily, the author has difficulty*

in convincing trainees to learn any other approach once they are exposed to the subclavian perivascular approach.....'.



of the local anesthetic ... Twenty milliliters in the subclavian perivascular space give the same extent of anesthesia as 40 ml in the axillary perivascular space, providing anesthesia of the brachial plexus and the lower part of the cervical plexus.

Advantages. This block is very easy to perform once the landmarks are located. Small volumes of the local anesthetic provide excellent anesthesia, which is established very rapidly. Since this block provides excellent anesthesia so easily, the author has difficulty in convincing trainees to learn any other approach once they are exposed to the subclavian perivascular approach. Subarachnoid, epidural, and vertebral artery injections are practically impossible.[115,116,117,118]

Disadvantages. *Phrenic Nerve Block.* Symptomatic nerve block is extremely rare and is seen in less than 2 percent of patients; it requires reassuring the patient and no treatment.

Recurrent Laryngeal Nerve Block. This complica-

The page in Green's Operative Hand Surgery Book which made us start using the Subclavian Perivascular approach to Brachial Plexus Block.

I told him, "Bhat, when someone writes like that, there must be some truth in it. Why don't you try this approach?"

The best thing about Bhat was that he would listen to anything that we said and give it a real try. Any new thing offered was a challenge to him, whether it was a new patient care protocol or a fancy computer. He read the chapter again and again, went through the Anatomy atlases, and was ready for it the next day. I still remember him sitting in the 3 ft x 6 ft small rest room of the operating theatre in the Ramnagar Ganga Hospital reading Green's Operative Hand Surgery and RJ

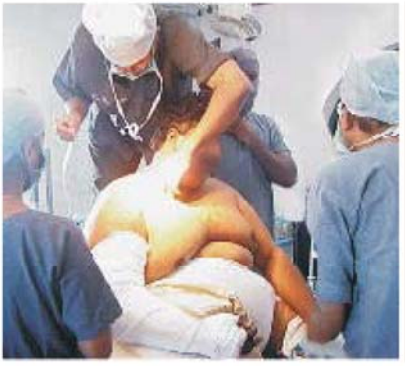
Last's Atlas of Anatomy. It worked! He gave these anaesthetics again and again and became a master. I was also surprised at the success rates. The anaesthesia was profound and better than what was achieved by the axillary block technique. Very often, by the time he finished giving the injection the arm had started dropping. Bhat was happy with the success he was obtaining and, soon, we were achieving a success rate of more than 95%. In the last 20 years, out of the many hundreds of replants we have done, only a handful have had a general anaesthetic. *All were achieved by the parasthesiae technique alone, without the use of nerve stimulators or ultrasound.*

Rajkumar accidentally fell off the tractor while tilling the field and suffered impalement on the moving blades. One blade passed through his forearm and came through the carpal tunnel into the palm and the next went through his arm and the next went just inside the abdominal wall in the loin. He was brought to Ganga from a distance of 60 km away after workmates had dismantled the tiller. The part weighed 75 Kg and Rajkumar could only hold one position, sitting and leaning forward. Any attempt to change from this position was agony for him because of the weight of the till and the last blade, dangerously pressing into the abdomen. *

Bhat gave the block with the patient in this position by, himself, standing on a stool. Only very few times in life will you have the opportunity to see the relief in the face of a patient that we saw in Rajkumar's face that day. It took only five minutes for him to be pain free and, only then, did we make him lie flat. The wound was very badly contaminated with soil, leaves and fertilizers. The excellent brachial block allowed us to debride radically and the wounds healed without infection.

* ***Impaling injury to the upper limb: an interesting case report. V Ravindra Bhat. Indian Journal of Anaesthesia. 2003; 47(3): 225 – 226.***

He was a willing teacher. The success rate of regional block anaesthesia surprised many surgeons who visited us to an extent that they went home and sent back their anaesthesiologists to observe. Finally, we wrote an article in the Indian Journal of Plastic Surgery with Dinesh Shetty who was our registrar at that time.*



Anaesthesia for a morbidly obese person can be a challenge for any individual. This gentlman became breathless when he lies supine. He normally sleeps sitting. The success of the procedure, in this instance for fixation of a fracture of the humerus, depended so much upon the reliability of the brachial block. Bhat giving the block standing on a table.

In the last few years in our department, we have been giving close to 3000 brachial blocks every year. Bhat took this technique to an art level, both giving brachial blocks and difficult spinal blocks. I used to tell the young anaesthetic residents not to just 'see' him insert the needle, but to watch him stand with his legs a little apart, steady himself, probe with his finger to fix the landmarks when they are not easily palpable and, finally, complete the needle puncture. It was the whole performance that had to be learnt. I used to say, with pride, that our anaesthesiologists could give blocks from a distance, like throwing a dart at the board. This familiarity was a boon to us since, in many instances, it made the emergency procedures possible and safer. When we perform long procedures it also costed so much less to the patient.

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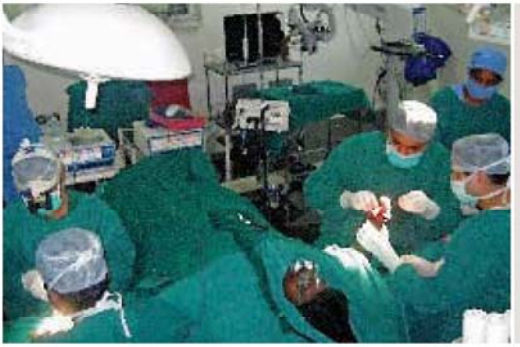
* ***Ravindra Bhat V, Raja Sabapathy S, Dinesh Kumar Shetty. Subclavian Perivascualr approach for brachial plexus blockade in upper extremity surgery. Indian Journal of Plastic Surgery. 1994; 27: 79 – 81.***



Bhat specialized in giving Bilateral blocks. We even did all our bilateral replants under brachial blocks, with Bhat carefully adjusting the timing and the dosage. Rarely we had to repeat the blocks for the completion of the procedure.

A Defining Moment of the Relationship

Before he became proficient with blocks, an event occurred which cemented our relationship. It was just a few weeks after Bhat started giving anaesthesics regularly for me. On 2nd of December, 1993, about 8 weeks after he gave an anaesthetic to the first patient at Ganga, Bhat had come to anaesthetise a patient by the name Dhandapani. He needed division of a groin flap to the hand. I was seeing some out-patients near the door of the operating theatre when the nurse ran up and said that the patient inside had had a cardiac arrest. I could not believe it. He was a fit young person posted for a simple division of groin flap. Inside I saw Bhat giving cardiac massage and the girl ventilating. I could not understand the ECG but there was no pulse and the patient had totally collapsed.I became almost numb. He was such a young fellow and his death would not be acceptable on any count. Bhat was giving cardiac massage, giving drugs and periodically giving shocks. Cardioversion was carried out twice but there was no effect. I was losing hope and prayed to every God on earth. I informed my mother and my wife, Nimmi, and I think they also did the same. Bhat was continuing to resuscitate. I just kept doing what he told me to do, seeing the pupil size, injecting Soda Bicarbonate, Calcium, Adrenaline,

massaging, and so on. More than 30 minutes had passed and, when he gave the third shock, the pulse returned. He kept on ventilating and, after about 6 hours, the patient stabilised. At that time we had no ventilator and no pulse oximeter but, fortunately, we had a good defibrillator.

After about 5 hours, when Dhandapani appeared to be stable, Bhat said that I could go ahead and divide the flap. I remembered Dr Ravikumar, Chief of Paediatric Surgery, whom my brother and I consider as our mentor. He had told me never to do any surgery after such a catastrophe, in order to avoid extra stress to the individual. So, we did not go ahead. When we finished that night, we were literally clapped out. I also had so many other things to do. There were no assistants and, so, from suture removal to fresh hand injury cases, I was doing them all. At the end of the day, I asked Bhat only one question. 'Bhat have you ever had experience of a patient surviving after 30 minutes of resuscitation following cardiac arrest and three shocks?". He said "No sir". By evening, it was the news of Coimbatore among the anaesthetic circle. Bad news and problems spread fast, like wild fire, and they can be very damaging to individuals and hospitals. Had we had a fatality, it would have been catastrophic to both of us and the Hospital. I was not so bothered about that as much as both of us were concerned that Dhandapani should be alright. Bhat and myself saw him periodically through the whole night. Next day, I called Bhat and asked him to come and anaesthetise the following day. I could sense great relief in his voice. Then it was business as usual, but we kept on discussing what could have gone wrong. We never fathomed that out. Dhandapani was a little disoriented for 48 hours and then became totally normal again. He, not surprisingly, asked why his hand was still attached to his abdomen and why he had pain in the chest. The pain was due to broken ribs as a result of the cardiac massage. After a week, we divided the flap under local and brachial block. A few years later, he came asking for a donation for the local cricket club! Of course, it was a pleasure to see him and live through the memories.

A few days after the incident, Bhat said that he had been so worried the whole night as to why it had happened and was also concerned about my feelings in respect of our future relationship. It would have been considered quite reasonable if I had slowly stopped calling him in the future, since he had only been with us for a few weeks. Anaesthetic disasters are the last thing any surgeon beginning his career wants to have. But I knew that such a split would have been a disaster for his career and to me as an individual. Knowing that he was so good, I could never have done that to him. I said 'Bhat, I am always happy to have you here. In life, it is never good to part after a bad experience. It could happen to anyone. To split up would be bad for you and not good on my part because I know you are good.I have great confidence in you. It was a bad day, but, fortunately, God was kind to both of us'. Inside my mind was the thought that, here we had a young man who would not give up in a bad situation and that is a commendable trait. He knew what to do in a difficult situation. I was amazed at the way he went through the whole thing in a systematic manner. Even experienced people would have flinched in that scenario. I am sure many would have given up. To be honest I had given up, since I had never seen anyone recover after 25 minutes of resuscitation. I just patted his back and said 'It is OKappa. Forget it, let us get on with things'. I remember that moment and his looks so well. It was a very powerful and emotionally charged moment. I think that brought us both so much closer and gave us a mutual feeling of trust in each other until the end. Then I asked, 'Bhat, have you got medical indeminity insurance?'. He did not have it, so I suggested he get it first thing the next day. Fortunately, he never needed to use it once in the next 20 years! It is open to question as to what I would have done, if we had not been able to resuscitate Dhandapani. I am sure my relationship with Bhat would have been the same.

Bhat always remembered the incident well. A long time after, we had to decide about a senior member of staff with a problem. So many points were being discussed this way and that. I called Bhat and asked him, 'Bhat, what do you think we should do?' He sat quietly for a minute and said, 'I know what you want

to do. It is never good to part after a bad experience. Let us maintain the status quo', and got up and left. It was amazing.

Never in my life before, had I seen a cardiac arrest successfully resuscitated after 3 cardioversions. During my training these were considered as rituals before declaring a patient dead. It was so instructive to me that, from then on, we never gave up, even when the chances were slim. We have to do what we have to do and do it the right way. The result is not always in our hands, but, at all times, we have to put in our best effort – and both of us used to call it 'the Dhandapani example'.

Bhat Joins Full Time.

Getting Bhat to give anaesthetics for me was a great boon to me. He would routinely take care of so many things. No work was too much, or too mean, for him to do it, if it would help the patient. Unfortunately, this comfort did not last long. He developed infective hepatitis and was on leave from both the Government Hospital and our service for a few months. When he returned, I told him that, working for both places, he could not do justice to both and asked him to consider submitting his resignation from the Government service. He just listened, then sent in a letter of resignation the next day. I had previously asked this of so many people and met with repeated failure to convince them to join our department on a permanent basis. No one seriously believed that hand surgery and trauma reconstructive surgery would sustain a full-time anaesthesiologist.

We had a strange need. We were introducing reconstructive microsurgery, doing replants and free flaps. Major injuries arrived at any time of day and the lengthy procedures needed the full-time commitment of a good anaesthesiologist. The patients ranged from the very young to the very old, and many had so many co-morbid diseases. Having worked with Dr Ravikumar, I had learnt to respect the

value of a good anaesthesiologist. Bhat was proficient and could handle anything. So, it was good that Bhat decided to join full time. In retrospect, it now appears that he listened to me for the first 10 years and I listened to him for the next 10 years. This is very true because in the last few years, whenever we had to take a decision, whether it be to buy new equipment or to deal with a staff problem, I always used to ask him 'Bhat, What shall we do? ('Bhat, Enna Pannalam?'). I listened to him with the closest of attention and most of the time agreed with what he said. I used to finish off the issue by saying, 'OK Bhat. Tell the manager that we will do it that way' ('OK Bhat, Nan Sonnennu Manageridam sollidu') and there the matter ended. *I was always convinced that Bhat had the good of the hospital in mind in everything he did and he was fairer than I could be to all concerned in most instances.*

When an institution grows and, especially, when you become successful, it is very important that one has people who are close to you who can offer wise counsel. It is so easy to be surrounded by people who tell you what you like to hear. People who were with you when you were growing have a special place because they also tend to value the organization. They know about earlier times and struggles. For them, the institution comes before individuals. At senior management level, we decide issues on the basis of information available and it is so difficult to find people to provide facts without adding their opinion. Of all the people in the hospital, I valued Bhat the most. He never gossiped. He never had a personal agenda. He never said anything bad about anybody. In fact, we spoke to each other so very little every day, although we were together for so much of the time. If he wanted to talk to me privately on any issue concerning the Hospital, he would just come and stand near me. That meant I had to get up and come and listen. Otherwise, generally when we spoke it was mostly about philosophy and the books he was reading. Every time I went abroad or visited a hospital and saw some good thing, I used to tell him. Many would have explained to me why this would not work for us. Bhat would never say anything, but I would see him trying to put it into practice at the next suitable occasion.

Evolution of the 'On Arrival Block' Concept.

Our success in replantation gave a great boost to the growth of the specialty. Further, the combined efforts of both the Plastic and the Orthopaedic teams in the management of major open fractures swelled our practice. The number of doctors we took in grew, but all of them were Orthopaedic surgeons. I advertised for a plastic surgery assistant in the Indian Journal of Plastic Surgery as early as 1994, but there were no takers. At that time, no plastic surgeon worked with another full time. My brother was kind enough to lend the services of his assistants. Dinesh Shetty, Vijay Bose, Madhusudhanan and Rex were of great help. Dheenadalayan who was the first MS Ortho qualified person to join us was a fantastic help and always lent a hand most nights. He was very good. Although all of them were good, no one had had any exposure to higher level Hand and Plastic Surgery and I had to do it all myself. The period from 1991 to 1997 was, perhaps, the period during which I worked hardest. Bhat was great at that time. He would write notes, talk to patients as they arrived, (very soon he developed good judgment as to what needed to be done), discuss costs with the patient, answer questions. I used to keep on operating while he was preparing the patients for surgery, as they arrived. Bhat used to do all this in the small 6 x 5 feet room which is immediately inside the door of the operating theatre. To keep the tempo going, the patients were given their block and were kept ready to go. Initially, they used to open the dressing on arrival, see the wound and then Bhat would come inside and describe the wound, take instructions from me and talk to the patient. He would then give the block.

The place where we received the patients was a corridor which opened directly to the outside. Sometimes, when the dressings were opened, the patient would scream. This was embarrassing, since there were other patients waiting and,

sometimes, new patients for elective consultations were sitting on a stool nearby! The screams would also be heard by the patients' relatives waiting outside. All of this was an extremely uncomfortable arrangement.

One evening when we were having coffee between operations, Bhat asked me if we could give the block and then open the dressing for all major injuries. It appeared to be a good idea. We had given such blocks on two previous major injury patients and the benefits were obvious. Two concerns cropped up:-

1. After giving the block what if the patient did not want surgery. How could we send him to another hospital with a blocked limb?

2. What to do if the patient said that he/she could not afford the cost of our treatment and wanted to leave. We could not send them off with a blocked limb.

We felt that, by giving the block, we would be committing ourselves to treating the patient. We felt uncomfortable about having a blocked patient leave the hospital. That was morally unacceptable. It might cause confusion at the next centre. So, I told Bhat 'Bhat, for any injury there cannot be a better place for care than ours. So making them accept surgery: I do not see much of a problem with this. I do not see any reason why anyone who has come to Ganga Hospital with a major hand injury would want to leave our hospital except for the cost.'The main issue, then, was cost. If they said they cannot afford, or will not pay for our treatment, then what we would do was the only pertinent question. I then said '*We will continue with this plan, whatever comes up. If any patient says that they cannot or will not pay, it does not matter. We will do it for free. We will absorb the cost, but make no fuss of it*". I realised we had to commit to this and Bhat was in agreement. So, that was how the decision to do 'on arrival blocks' came about. It was a major decision that we took over a cup of coffee that evening and it had far reaching effects. From just giving blocks, to going to any length to resuscitate the patient on arrival, became our routine, since cost was no longer a factor. To

enable us to take such decisions, we have to thank our parents and the confidence they gave us to take such decisions, putting the interests of the patients first. I think a system of values rather than science or a technical plan was being created and put to the test.

Prof Stevan Moran, Chairman, Department of Plastic Surgery, Mayo Clinic, Rochester, USA visited us as the Ganga Hospital – J & J Visiting Professor in the year 2007. Bhat is explaining the rationale of the on arrival block which impressed him very much.

Prof Steven Moran while leaving after a few days of stay in the unit penned the following words in our visitor's book. 'An amazing experience one which I will never forget. This has changed the way of my thoughts on Hand Trauma'. The on arrival block concept was one of the things which impressed Prof Stevan Moran.

The Value System on the Test

As it happened, we were put to the test that very week. A 16 year-old boy working in a chicken selling shop came in having amputated four fingers at the bases in a village near Salem, 100 miles away. In many villages, mutton and chicken shops spring up on Sundays, as Sundays are the only days when many villagers can afford to buy non-vegetarian food. On other days, these amateur shopkeepers go back to their regular jobs as farm hands. A young doctor at Salem General Hospital told him to get to our hospital as quickly as possible but did not tell him to keep the hand elevated. The bandage was acting

as a venous tourniquet and, being a clean cut injury, the digital arteries bled a lot. The dressing soaked through and, one by one, his companions took off their shirts and added them as the next layer of dressing. It was funny to see all of them come in bare chested! We started off with the 'on arrival block', explained the surgery, the possible outcome and the cost to them. All three fellows, in their late teens, looked at each other and us. They said that they had never seen more than two thousand rupees at any single time in their lives. I asked them how much they can pay. They said that they have no money at all and that the injury had happened just three hours after business started. They had just the money to get to us and, had it occurred earlier, they would not even have had the money to come. To make the point, they said that, if I agreed to do the surgery, he would supply chicken every Sunday to someone in Salem for the rest of his life! Bhat was standing with a hand against the wall and, when he heard this, gave a faint smile and told the nurse to shift the patient inside. That could be the only response to such an honest response from a patient!

We started late afternoon that Sunday, worked for 15 hours and finished early on Monday morning. All the fingers survived but, as they had said, they paid not a rupee to the hospital. They were really poor. But we had agreed to do that as per our principle. It is OK for the surgeon: I could do it to satisfy my vanity, improve my practice and gain experience. We could do it to make a name for the hospital. But rarely will you will get an anaesthesiologist who would be prepared to be around for 15 hours and not get any remuneration. Bhat did that many a time. In fact, that is what made 'on arrival block', a regular practice. In the beginning of our practice, we had to establish microsurgery. Many could not understand why we were taking so much time to attach a small part, such as the thumb, when major fractures were being fixed in one third of the time. At that time, the number of people paying little for the effort we were putting in was high. Now people understand, or, at least, making them understand has become easier.

Now, I find that, in many regional anaesthesia forums, the 'On Arrival Block' concept of pain relief on arrival at Hospital, is discussed frequently. In the course

of time, it may become the norm and a gold standard of care for emergency care systems. I think what made it possible was Bhat's skills, his availability and our willingness to go for it without financial consideration at a time when finance was, indeed, a significant factor for us. I am proud that we led the way in this and hope that Bhat's contribution to making it possible, and our coining the term, is remembered for ever.

Quickly, we realized that it was a good protocol because the patient became, almost immediately, free from pain. It solved so many problems. I could come to the patient after finishing the case that I was doing, or in between cases, and show him, or her, the wound and talk to the relatives. It was remarkable how patient satisfaction increased. Patients used to travel hundreds of kilometres in pain, as there were no good ambulances or roads at that time, and, within minutes of arrival at Ganga Hospital, be completely free of pain. Showing patients their wounds and explaining what we had to do also helped them to appreciate the work we were doing. They also co-operated with therapy better. I coined the word, '**On Arrival Block**', for this. And later, (after more than 5 years, when the internet and journals became available) we fully understood its good effects on the pathophysiology of trauma. Bhat became an expert, and, in the same small room, even started giving spinals to patients with severe lower limb injury. What was happening was amazing. Little did we realize that we were creating a new model of trauma care.

I am writing this on the way back from a Mayo clinic symposium. One of the speakers, Dr Michael Miller, from Columbus Ohio, gave a presentation on 'Reconstructive Surgery Needs Around the World'. I felt a tug in my chest, when a slide appeared in his presentation with the famous Chang Gung Hospital, Taiwan on one half and Ganga Hospital on the other half and he said that both were among the best models for delivery of reconstructive surgery in the world and had features which the western world would find it difficult to match. One of these was, undoubtedly, the capacity to provide 'On Arrival Blocks', making the patients pain free as early as possible. This did require good primary assessment and Bhat

was an expert at this. Martin Boyer, of Washington University, who visited us as the Sterling Bunnell Fellow of the American Society for Surgery of the Hand was so impressed by the 'On Arrival Blocks' that he forced us to write an article quickly on the concept. He took it personally to the Editor of the Journal of Hand Surgery, Dr Paul Manske, who was his colleague, and told him how impressed he was with the usefulness of this technique. Unfortunately, it did not see the light of the day. We should have sent it with perhaps more details. Nevertheless, this was highlighted in the Douglas Lamb lecture that I gave to the British Society for Surgery of the Hand at the Royal College of Surgeons, London and the publication of the lecture in the Journal of Hand Surgery has a paragraph on it. David Elliot, Editor of the Journal of Hand Surgery, making editorial corrections, changed it to '**Block on Arrival**', but fully appreciated the significance of this contribution and its importance, having told me so many times since.*

Infrastructure versus Initiative

It is said that a computer can do the job of hundreds of men, but no computer can do the job of an extraordinary man. A study of any successful unit will reveal extraordinary men leading the way. We had Bhat with us in our quest to provide the state of art anaesthesia in acute trauma care. This happens in every field. The founder of Starbucks coffee has explained this in a book entitled 'Pour your heart into it'. Flashbacks to the early years is a classic example of what can be achieved if one really pours one's heart into it.

We were becoming known for replantations and, so, whenever a limb amputation was suggested in nearby hospitals, patients came over to seek our opinion before accepting amputation. As a result, we were able to save quite a number of limbs!

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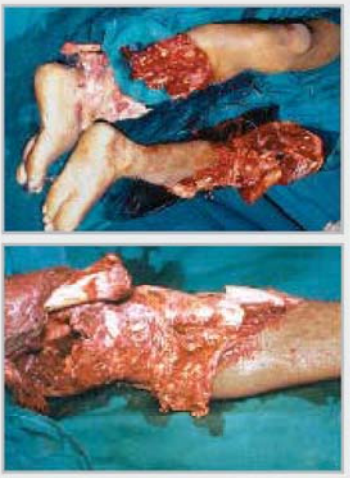
* ***Raja Sabapathy S, Venkatramani H, Ravindra Bharathi R, Dheenadhayalan J, Ravindra Bhat V. Rajasekaran S. Technical considerations and functional outcome of 22 major replantations. (The BSSH Douglas Lamb Lecture, 2005). Journal of Hand Surgery (Brit & European Vol) 2007; 32E:488-501.***

We were performing very major procedures with minimal resources. To give an example, while we were busy with a regular list, we received a young 12 year-old boy, Nandakumar, who had been run over by a lorry at Perundurai, a small town 85 kms away. He had suffered a below knee amputation on the right side and a major crush injury of the left lower limb. Since we were known for replantation he was brought straight to Ganga. He was quite sick and pale as a result of heavy blood loss. On arrival, his haemoglobin was 5 gm%. I found the amputated limb unfit for replantation and he had to have an immediate below knee amputation on the right side. More important, I found that the left leg had very serious injuries. He had circumferential degloving of the left leg from the groin to the lower third of the leg, had a fracture of the femur and both bones of the leg, and had also ruptured the femoral artery at the level of the mid thigh. The distal part did not have blood supply. The left side in fact needed above knee amputation. The parents were aghast at the prospect of their child losing both legs. I knew we could save the left side, if we could repair the femoral artery.

Here we had a very sick boy, pale as paper, with an Hb of 5 gm, with a serious injury, but with a chance of limb salvage. Many would have just thought of life salvage at that time. With Bhat, we could afford to think of both life and the limb. He told me to go ahead if I thought I could do it and he would take care of the rest. We had no blood bank and blood had to be outsourced from a couple of centres. It needed so much co-ordination - sending blood samples with an attendant who could scarcely understand what had to be done, talking to blood banks where things were always in demand, etc. Bhat used to be phenomenally pro-active in this. He would talk to the patients, the blood banks in the city, arrange someone to take the relatives to the blood banks and anything else possible to make things happen. On one occasion, I found him, himself, going off to the blood bank to get blood. To him, anything good for the patient could be done.

With this patient, we quickly debrided the leg, Dheenadayalan put on external fixators and, with Madhusudhanan, I revascularised the leg with a vein graft taken

from the amputated leg. The limb was saved for the day and, ultimately, we did multi staged reconstructions, finishing off with a tube pedicle flap from the groin region to cover the fracture site in the leg. The boy grew up to be a lawyer, is married now and has a family.*



Left leg was salvaged by the reconstruction of the Femoral Artery. Raw areas extending from the groin to the lower third of leg was covered by various flaps.

As surgeons, we may have the capacity to debride, stabilize fractures, revascularize limbs and perform flaps, but, to make it possible, we need an anaesthesiologist who is willing to take responsibility and give us the confidence to go all the way. Extra commitment more than compensated for our lack of infrastructure. Bhat was that individual who made it possible for us to achieve and he led by example. Over a period of time, each of us knew each other's strengths and understood how far we could stretch ourselves. That gave us a tremendous opportunity to extend the frontiers of limb salvage. All this rested on us acting quickly, resuscitating the individual fast and getting him or her onto the

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* ***Mckenzie JRW, Mac Lean G, Bharathi RR, Sabapathy SR. Tube pedicle flap in the management of Grade III C lower limb injury. Journal of Plastic Reconstructive and Aesthetic Surgery, 2006; 59: 1420 – 23.***

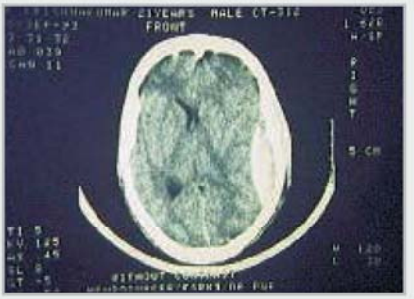
operating table as soon as possible. Since we were almost always in the operating theatre, another concept in trauma care slowly evolved.

Concept of 'In Theatre Resuscitation'.

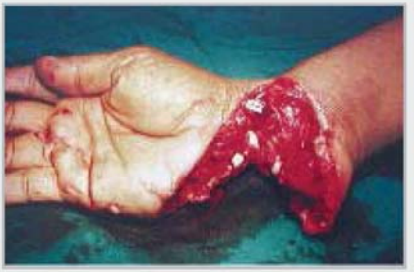
As mentioned earlier, major injury patients were transferred directly to the operation theatre and resuscitation was done in the anteroom of the theatre. It helped in many ways. First, senior level input was available to these patients on arrival. Second, decisions could be taken to get them onto the operating table as early as possible. On occasions, when things demanded, they were put straight onto the operation table itself and damage control procedures were then carried out.

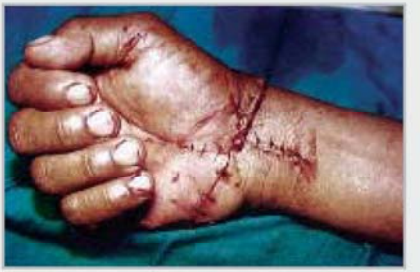
The patients demanded the skills of many specialists, such as cardiothoracic surgeons, general surgeons and urologists, on many occasions. We did not have any of them in house, but Bhat coordinated effectively to get them to our theatre. I remember very well Dr Muralidharan, Cardiothoracic Surgeon, and Dr Moses, Urologist, remarking that they never got opportunities to operate on such morbidly injured patients. Most of them would have died, even in centres where every specialist was available.

We did not have a CT scanner. Sometimes, we received major limb trauma with head injuries. We referred isolated head injuries to head injury centres, but, on occasions, when the limb injuries demanded our attention, then we had to treat them. On such occasions, Bhat used to intubate the patients, ventilate them with an Ambu bag connected to an Oxygen cylinder, take the patients to the CT scan centres in an ambulance, and bring them back. We succeeded in doing replantations and revascularisations, even in patients with head injuries and extra dural haemorrhages, with both pathologies being managed adequately .



A young man was assualted with blunt and sharp wepons. He had multiple limb and facial injuries and extra dural haemorrhage. Was in shock and disoriented on arrival. We managed to do craniotomy and revascularisation with a very good outcome.





Now we have all these investigative modalities under one roof, but a beginning was made when we did not have any of these things. It was the effort of people like Bhat in those early days which built our reputation. This put tremendous demand on Bhat, but he bore it with ease. In his book 'Outliers', Malcolm Gladwell said that 'People who achieve success work not just hard, or really hard, when compared to others. They work really very, very hard". It was a pleasure to work along with Bhat in that way. With every life and limb saved, he seemed to gather strength. Soon, the system of in-theatre resuscitation at Ganga Hospital became the talking point of everyone who visited our centre and understood the value of the effort. Dr Mukunda Reddy, Chief of the Plastic Surgery Division at the Nizam Institute of Medical Sciences, Hyderabad is a close friend and one of the great microsurgeons of our country. When he became the President of the Association of Plastic Surgeons of India he asked me to just take a video of what happens from the time a patient with a major hand injury comes to Ganga Hospital. We presented it at his Hyderabad conference.

In April 2012, I received a mail from Dr Thilak Jepagnanam, Consultant Orthopaedic Surgeon at Christian Medical College, Vellore. He had spent two months as a Ganga Hospital Johnson and Johnson fellow in the year 2004. He stated that a team of senior trauma surgeons, neurosurgeons, intensivists, as well as their Medical Superindentent, wanted to visit our centre to see the system of trauma care. Christian Medical College, Vellore is an institution we greatly respect and that made this request special. But what was most important was the last line of his e-mail. It was this- 'Sir, hope they will all have some time to spend with Dr Bhat'. Such a request coming from surgeons is really fantastic. That was the only special request Thilak had made and that was the only request which we could not fulfill. We had fixed the date of their coming as May 11th, but, unfortunately, Bhat was no more with us on May 5th. They did not get to see him, but what they saw overwhelmed them and made them value the contribution of Dr Bhat.

Stay in Power - A Crucial Element of Strength

Just as we moved over to the adjacent building after the first expansion in 1997, we bought the first ventilator. The night after we got it, I got a call in the middle of the night. The duty doctor stated that we have received a patient who had had a very severe lower limb crush injury, had severe blood loss, was pale and almost gasping for life. He even asked me what to do if the patient died! As he was asking that question he said 'Sir, Dr Bhat Sir has come'. I told him 'Disconnect the phone. Do what he says, help him and let me know how things are going'. A few minutes later, he rang up again, stating that the leg wound was bleeding profusely. A patient who came in almost dead had been resuscitated to a degree that the wounds were bleeding! I rushed in, controlled the bleeding, debrided the wound and set it up for successful salvage of the leg.

However, the patient needed ventilation because of the damage that had occurred as a result of prolonged hypotension and hypoxia. We had just bought the ventilator, so he was the first patient.

Then the problems of having a single ventilator became apparent. Bhat almost lived in the hospital when we had such patients, since we had to train people for emergency situations such as tube blockage, power failures etc. Bhat had remarkable stamina for doing this. His characteristic and great trait was that he would sit down whenever a patient was sick. That enabled us to save many lives and do remarkable reconstructions. When people say that we have raised Ganga Hospital to first place in the minds of people in the event of an accident, it is because of the contributions of people like Bhat.

This was brought to the fore when a Paediatric Surgeon, was run over by a lorry in a road traffic accident. He had a major degloving injury with extensive skin loss of the lower limb among other injuries. The accident happened when he was on his way to operate at a major hospital. Although the accident happened very near to that Hospital, he managed to say, several times, to the people around' Take me to Ganga Hospital', then lost consciousness. He had to be cared for intensively and had to have a series of operations. We did them all with him on ventilator and Bhat did not go home for 4 days. There was naturally great concern at the condition of the patient since he was a surgeon himself and the famous critical care specialist, Dr Ram Rajagopalan from Chennai, was brought in for a second opinion. Ram saw the total package of care that was being given. When one of the patient's friend asked Dr. Ram Rajagopalan, 'Do you think any more intensive monitoring could be of help', Dr Ram Rajagopalan paused for a minute and said, 'In critical care, the equipment can, to a certain extent, tell you the problems as they are occurring. However, more important is to have an extremely dedicated and skilled person who can take corrective steps at the appropriate moment. Here I find an amazing person who has done it so well that I do not think anybody, anywhere, could have done anything better'. There it was and it summed up the capacity and performance of Bhat in a critical

situation. When I informed Prof Ravikumar, the senior Paediatric Surgeon, that Bhat has died, the first thing he said was, 'Oh, what a great loss. There are so many people like our Dhiraviaraj who owe their lives to him.' When Dr Dhiraviaraj came up sobbing to pay his respects, I went through the whole event in my mind.

Becoming a Mountain of Trust.

It is difficult to define trust. The most valued component, be it in respect of a doctor-patient relationship, inter-colleague relationship or, even, personal relationship is trust. Tatas, justifiably, on their centenary created the caption '**A Century of Trust**', for all their advertisements. Trust is not built in a day, but built by actions, big and small, every day and it takes consistent performance for a long number of years to build trust. It can easily be lost. Bhat was the mountain of trust to which all leaned when they were in trouble. At his funeral, each person from the hospital spoke of at least one incident which they recollected when they had looked up to Bhat to solve their problem. That is a great attribute and people sense it. A security guard of the car park would feel confident to ask Bhat what to do for his sister's heart problem. Although he met every doctor of the Hospital every day, including myself, he chose only to ask Bhat. Why was that? What makes people single out certain individuals to air their problems? That is called Trust. The same story came from everyone. Viji, wife of our orthopaedic consultant, Dr Dheenadayalan, said that she had been given the phone number of Dr Bhat as the first contact for her two teenage daughters in any emergency. She told them to ring him up even before ringing them, her parents, since she was sure that his response would be faster and more purposeful.

After his death, we were preparing the draft of the Obituary to be printed in the newspapers. When I was trying to correct what I had written, Mr Krishnan of Krishna Sweets said, 'Don't worry about all that. Here grammar, sentence formations and all that do not matter. We write what we feel and we don't write it

for anybody'. After I finished writing, he wrote the tribute he was publishing and it read. This, again centres around Trust.

" ஶரமிருகீக ஶகமேன் "

என்ற மந்திரத்திற்கு

சொரூபமாக இருந்தவனே !

இனி எப்பிறவியில் உன் தரிசனம் பெறுவோம்...

(When a Hindu sees the hand of the Lord raised in blessing, he feels as though He assures him by asking, "Why fear when I am here?!" Fear, anxiety and worry disappear. Mr Krishnan expressed that Bhat provided that comfort at every difficult situation.)

Bhat emanated that trust just by his presence. Two weeks before his death, a press reporter of a leading newspaper met with an accident and had a major crush injury to his leg. At the scene of the accident, he told all the passers-by 'Please take me to Ganga Hospital'. That is trust. We did the debridement of the wounds, stabilized the fractures and provided free flap skin cover in 48 hours. During the night rounds, he told me that our hospital was not new to him as a source of treatment. Seven years ago, he said that his one year-old son had suffered a near total amputation of his fingertip in a door crush injury. It was the day after the child's first birthday, which they had celebrated in a grand manner. At that stage, his wife joined the conversation and said 'Sir I was so worried that he had to have an anaesthetic. When we reached the operation theatre, a doctor with a small beard and a chain of Ayyappan came and just took my child from my hands. I do not know Sir. When I saw him and the way he took the child from me, I felt secure'. That doctor was Bhat. Then I told her, 'Don't worry. It is the same doctor who will take care of your husband tomorrow for the major microsurgical operation.'

Gaining the trust of co-professionals in professional matters was easier than what Bhat achieved in the social environment. Professionally, he was the edifice of trust. Once, when my father became critically ill, Nimmi and I were in Australia. When night fell, my brother told my mother that he would be in the next room to our father. To which my mother replied 'You being there is OK. But where will

Bhat be?' My mother, at that time, wanted Bhat to be around more than anybody else. Thousands of miles away the same trust was being revealed. I was busy cutting short my Australian Visiting Lecturer ship in Melbourne and working through the night through internet and phone calls to reschedule my flights, since my brother had asked me to rush back. Distance was adding to the anxiety and I was concerned that the necessity should not arise to put our father on a ventilator. My wife Nimmi was reading some devotional books and coolly said 'I am not worried about Mama (my father). He will be alright. I am only worried about our CEO'. At that time our CEO, Mr Ramamoorthy, a long term renal transplant patient had just suffered a myocardial infarction and secondary renal failure. I was a bit irritated at this statement, because of my anxiety, and asked her how she could say that when she knew nothing about the medical problems both faced. Nimmi replied without batting an eyelid 'Mama will be OK because he is in our Hospital and Dr Bhat is there. Our CEO is in another hospital and I do not know who will take care of him in the same way. I am not a doctor, so cannot know what their problems are, but this is what I believe'. The answer stunned me, and left me speechless. Her trust in Bhat was not misplaced. My father recovered. At the condolence meeting convened by the city anaesthesiologists to remember Dr Bhat, my father who, incidentally, is the most senior anaesthesiologist in the city, in a rare show of emotion, said in a choked voice'***I have lost my third son***'.

Pour Your Heart Into It.....

I have borrowed these words from the title of the book by Howard Schultz, the founder of Starbucks coffee. I liked that book very much. Schultz would dwell on the passion, commitment, attention to detail and all the things that helped Starbucks to what it is. Bhat exhibited all this in his every action. Here I would like to deal with the way he prepared for his lectures. Every time he prepared a lecture, our knowledge base and, many times, our clinical practice improved. He

would read everything on the subject that was available. 'Golden Hour in Trauma Care', is a term used in every day parlance but, once, when Bhat was asked to talk on this Golden Hour, he went through the whole thing, learned its origin and how it had come to mean different things with time. Until he understood fully what something meant, he would not rest. Similarly, once, we were both asked to lecture at the Vinayaka Medical Mission. Bhat could have easily talked with the amount of knowledge he already had, but he read incessantly for many days. At the end of all this, he told us of the concepts of the 'Golden Hour', the 'Silver day', the occult hypoperfusion syndromes and the value of lactate measurements etc. All this had just come into regular practice and we became one of the first centres in the region to start using these concepts clinically. He would do all this without any ado and without any need for recognition. It is said, 'It is astounding to know as to how much one can achieve provided you don't want to take credit for it'. Bhat was a classic example for this. Although we used to put the role of the anaesthetic team forward in all our speeches, it always remained in the depths of my heart that they deserved a higher place in the sky. So, when I had the opportunity to speak on the topic, 'Regional Anaesthesia – a Surgeon's Perspective', in the Academy of Regional Anaesthesia meeting a fortnight before his death, I paid great tribute to his contribution. The hall rose as one to applaud that. I felt so happy at the end of the talk. No one could have ever thought that Bhat would not be with us a fortnight later.

His preparation for lectures was so good that I used to tell him 'Bhat, you and I have to write a book on what we felt when we did the major cases and the thought processes we went through. It may not be exact science, but am sure it will be great reading for young people.' We chose some patients, got to making outlines, but never got beyond that. I will always regret not doing this project.

Why This to Bhat?

A few months have gone by, but I still have not got the answer to 'Why did this happen to Bhat?'. I also, often, feel let down by God, since I used to feel that if you work hard and be good you will get good things. I had discussed with Bhat issues like Death and God's ways of doing things so many times. When I used to ask him probing questions, he always used to finish off the conversation with a smile and say 'He knows best and it is futile for us to question God as to why. Prayers and being spiritual help you to give a proper response to an event, although you may not have control over the event'. He once showed me a news item about the great tennis player Arthur Ashe and said that it is the best way to take the events of life. Perhaps, he tried to prepare us for this day.

Arthur Ashe was African-American and had millions of fans all over the world. He was not only a great player but also a thorough gentleman. In 1975, Ashe won Wimbledon, unexpectedly defeating Jimmy Connors. In 1988, Ashe discovered that he had contracted HIV from blood transfusions he had received during one of his two heart operations. He and his wife kept his illness private until 1992, when the news leaked. Soon, Ashe started getting lots of mail. Many asked him why did God choose him, of all people, when he had done nothing wrong in his life? To this, Ashe's reply was "All over the world, some million teenagers aspire to become tennis players. Out of these million, may be a hundred thousand reach some sort of proficiency. Of them, only a few thousand play in some circuit and only a hundred, or so, play the grand slam. Finally, only two reach the final of Wimbledon. When I was standing with the trophy of Wimbledon in my hand, I never questioned God "Why Me?" and, now, what right do I have to ask God "Why Me?". Ashe died in 1993.

A person like Bhat had the equanimity of mind to accept things that way, but it is difficult for the rest of us to come to terms with this. What did we do to have this

happen? I know we worked hard. I do not know if we sprinted very fast or ran a marathon at high altitude. Looking back, we did what we thought we should do and, given the chance again, Bhat and all of us would do the same again. Nevertheless, the question 'Why this to Bhat?' will ever remain.

No Time for Grief...

As the news of Bhat's cardiac arrest reached Ganga, almost everyone swarmed to Kuppuswamy Hospital. It was close to 1 am and we had to face the grim fact that we had lost him. Meanwhile, what was happening at Ganga? Ironically, resuscitation of a young man with poly trauma with a smashed face who had aspirated was going on. I got an SMS from Hari stating that Kannan and Venki have resuscitated a man with a smashed face with an SMS following it. Hari had messaged, 'I have told Venki that we have to work harder and carry the work of Bhat forward'

Bhat died on Saturday night and the funeral was on Sunday. I hardly slept that night. On Monday morning, I braced myself to be as normal as possible, since I knew the whole place would be soaked with grief. We had a very busy outpatients day. When I entered the theatre, every nurse had tears in their eyes, but no one said anything. Some senior nurses like Sister Nalini, who had been with us from day one of Bhat, caught my hand and sobbed. There was silence in the theatre, but work went off very, very smoothly and we finished the day having operated on 32 patients inspite of it being an out-patient day. It looked as if everyone was trying to pay tribute to Bhat by working well, knowing that is what would please him. I was amazed. Even in death, Bhat did not do anything to affect work adversely. He died on Saturday night, with the funeral on Sunday, and all us were back to work on Monday. It seemed as if Bhat had prepared us for it that way. It all hinges on attitude building, and Bhat was the unofficial conscious keeper of our ethics and attitude at work.

An incident, a few months before the fatal day, sums everything up. It was a Sunday and I had come in to do some academic work. Dr Venki, who was taught by Bhat, had been on call on Saturday and was leaving for home rather late. He took leave of me and went. Fifteen minutes later, he came back and I wondered if he had left something behind. When I asked him he said,'Sir, I went to the car park and, as I was leaving, I heard the announcement 'Code Yellow'. (Code yellow means arrival of mass casualties at the emergency room). I came back just to see if any help was needed'. I was stunned at that sincerity. It is such acts which keep Ganga going. It reminded me of Bhat's attitude. The next day, I told this to Bhat and he replied with his usual smile, proud that he had produced the next generation.

Spirituality at Work

Many ask me, all the time, when I am in meetings or conferences, 'How can you find people who can work like this?' I know money is not the answer. It can never make people do this. I think it is a certain element of spirituality which provides the passion. It provides the power when you actually may not possess it. Dr Chandini Perera, Chief Plastic Surgeon, National Hospital, Colombo, Sri Lanka, was with us for a few months on a fellowship. I was visiting Sri Lanka and, during a faculty dinner, she was speaking about Bhat. 'I think that there was a very spiritual power in him. So often, I used to find that, when very sick patients came to the theatre for resuscitation, things looked bleak. I used to see Bhat enter and one felt the whole atmosphere change. There was so much positivity in the air and it was almost magical the way he used to intubate, resuscitate and get them all back'. Many have echoed similar sentiments.

Bhat and family

Dr. Bhat with his wife Dr. Chitra, Prof. of Obstetrics & Gynaecology, PSG Medical College, Coimbatore and daughter Dr. Keerthana, a Facio Maxillary Surgeon in training

It is always interesting to know how the family copes with the busy working pattern of a person like Bhat. Bhat was fortunate to have in his wife, Chithra and daughter Keerthi the support a person needs to achieve what he achieved in a short time. To Bhat, they were the only world apart from work. Chithra says that Bhat always gave a different perspective to any question or problem. When once Chithra commented about the 10 duty days he spent in a month, Bhat replied, 'Just look at this way, I am free without any disturbance for 20 days in a month'. When I told Chithra that I am writing a small booklet on him, she sent a note which had this as the last lines – 'He has been the greatest gift that God gave us. To have lived with such a noble person we should be proud'.

Life is its own reward

For the exceptional work he did, sometimes I wonder that Bhat did not receive the formal awards that a person receives in an illustrious professional career. But he was adored and respected by everyone who came in contact with him. At the recent international hand surgery congress, we had published a book of the paintings of children on the theme of 'Hands you see'. Dr Shailendra Singh, who was one of our former trainees and presently a very busy microsurgeon at Ahmedabad, bought a copy. He got my signature and then he saw Keerthi,

Bhat's daughter standing nearby. She had come along to help. He just went to her and said, 'Please sign this book'. To a bewildered Keerthi he again said, 'please sign this book. 'I value Bhat Sir so much, the closest I could do is to get your signature'. When Keerthi did sign after persuation, he just took the book back and walked away saying, 'Now this book is very valuable'. Such spontaneity of love and respect of all the surgical trainees was something that is seen to be believed. When the news of Bhat's death spread, I received letters and messages from hundreds of surgeons throughout the world - an extraordinary, but a well-deserved response from the surgical community. To live in the hearts of people who love is never to die.

Till We Meet Again....

On Wednesday 9th May, 2012, we had a Prayer meeting in the morning in our Hospital. The auditorium was packed to capacity, with everyone coming, irrespective of their duty shift. My brother Rajasekaran, while speaking, quoted the author Brian Weiss, stating that such profound relationships cannot be, or end with one lifetime. The author had stated that they must have existed in another life and it is quite possible that the relationship would continue. It is hard to debate whether this could be true. With Bhat, we hope it is true. We need to have such noble souls in the profession. What he helped us achieve is something extraordinary. Robert Frost said, 'After all these years, the only thing I have realized is that life goes on'. It is true, it will go on. Many in successive generations will never know the efforts, the sweat, the tears and the blood and the life that has been given to make an institution. But, for the people who were together to see it happen, the joy of having done it will ever remain. It shows how co-operation between surgical and anaesthetic teams can raise the level of care of patients to the mutual benefit of everyone concerned. We do hope for a person beginning their career, it serves as a beacon of light to point to a path that should lead to success.