A PROVIDENTIAL RARE ESCAPE "LIFE BACK FROM THE WILDERNESS" WE CAN MAKE A DIFFERENCE SOCIAL OBLIGATIONS / RESPONSIBILITIES

THE 'HAND OF GOD' THAT BROUGHT<u>FOUR HOUR OLD</u> BABY MANISH, FROM THE"JAWS OF DEATH" TO A FRESH LIFE

To come to think of it now, it has to be the 'Hand of God' that brought <u>four hour old</u> Baby Manish, literally from the "Jaws of Death" to a "Fresh Start in Life".

This is a vivid account of how this blessed **four hours old baby** was snatched away from the jaws of a monster, by the field workers at the village Chaubeypur near Varanasi in a grave life threatening condition, on July 31, 2003 and his eventual journey to the normalcy. Manish was picked up by the kind hearted villagers and the Police in the midst of a thick forest and brought in a sordid state to the **SOS CHILDREN'S VILLAGES** OF INDIA, an NGO working towards the welfare of the poor and needy children by providing them care and counseling.

Having overcome the shock of being deserted within four hours of being born into this World, he was further assaulted and being mauled by a wild beast. The entire thigh and the calf muscle of his right leg being chewed off by the carnivore and left bleeding profusely at the mercy of 'the Hand of God'. Little Manish had to be rushed to the nearby medical Centre and thereafter to the Institute of Medical Sciences, Varanasi for intensive medical and surgical care under the supervision of Prof. Saroj Chooramani. He was provided the initial care of the life threatening infections and loss of tissue and nerve damage, to ensure the child's survival. Further attempts through Reconstructive Microneural and vascular surgery at Mumbai were aimed at the functional reconstitution of the affected Limb. The final evaluation delineated an extensive damage to the blood vessels, muscles, common peroneal nerve and skin in the thigh and the calf region. These are collectively responsible for overall survival, function and the shape of the limb, enhancing one's ability to lift the ankle and maintain a reasonable cadence during a normal walking gait.

Compounding the extensive nature of the injuries was the tender age of Baby Manish and the risks associated with prolonged anesthesia in this age-group. There was also, the need to repair the damaged limb at the earliest, lest he remained a "Cripple for Life". The surgical challenges in Baby Manish were voluntarily accepted by Dr. Ashok Gupta, for unusual surgical endeavors in complex and life threatening conditions like the one for Baby Manish. Baby Manish after a thorough evaluation of the missing and injured structures, was subjected to an exhaustive and specialized Reconstructive Microsurgery at the Bombay Hospital and Medical Research Centre, Mumbai.

The "Ten hour long Surgery" involved a complete freeing of all the scarred tissue, replacement of the lost muscle and skin bulk along with transfer of dispensable nerves and vessels and using them for restoration of continuity of the damaged segment of the nerve / vessel of the Baby Manish using microscopic magnifications and thereafter providing suitable soft tissue and skin cover using locally available healthy tissue. He stayed in the hospital for almost 1 and a half years, he was well looked after by the hospital staff even including celebration of his 1st birthday in the hospital. Then he came back at the age of 4 or 5 years for follow up, He needed some minor correction for a foot distraction and tendon transfer. Thereafter at the age of 11 years, he was reassessed for the growth discrepancies and realizing the need to reinforce the strength and the volume of the calf muscles, a free functioning muscle transfer procedure was undertaken. A marathon 28hour supra major surgery involving two anesthetists, two pediatric surgeons, three orthopedic surgeons, five plastic surgeons, and 12 nursing staff over and above the complete ICU back for post op care.

While at the Bombay Hospital & Medical Research Centre, he had undergone a number of stages of reconstructive surgeries at varying ages beginning from few months of age to the current age. As part of the CSR (Corporate Social Responsibility) the entire treatment was supported by various NGOs. Neither the Surgical team did charge any professional fee, nor did the hospital levy any charges towards the cost of hospitalization, the OT and other charges. The cost of consumables and certain special investigations (heavily subsidized) were also supported through donations / charities.

To summarize initial conditions to begin with and surgical steps:

- 1. Wound Care and dressings (at Institute of Medical Sciences, BHU, Varanasi).
- 2. On arrival at the Bombay Hospital:
 - a. Poor general condition of the patient
 - b. Extensive Post Traumatic immature scar popliteal region and the anterior-lateral-posterior part of the calf / leg region.
 - c. Multiple Marks of the animal bite on the outer side of the thigh and the leg.
 - d. Weak / Loss of distal pulsations of the Anterior Tibial / Dorsalis Pedis Vessels
 - e. Loss of Lateral Popliteal Nerve function
 - f. Loss of the head / proximal shaft of the Fibula
 - g. ?? Congenital TEV / or due to loss of function / muscle bulk of the muscles of the lateral compartment / un-opposed action of by the muscles of the medial compartment.
 - h. Limb Length discrepancy

Attempts were aimed at restoration of the distal circulation, innervation and functional reconstitution of the soft tissue in the affected Limb.

1st Stage: 25th July 2004

- Excision of the adherent scar and release of fibrous tissue
- Microscopic exploration of the popliteal vessels and identification of the blockade / loss of continuity of the popliteal artery
- Microscopic exploration of lateral popliteal nerve and identification of the proximal / distal cut ends of the lateral popliteal nerve.
- Excision + release of the residual part of the contracture on the leg and the calf region.





 Fascio-cutaneous rotation advancement interpolation flap from the medial side + SSG at the donor area.

Immediate post-operative recovery was good. The distal circulation improved and the flap survived. All the wounds healed by primary intensions.

The child had celebrated his first birthday in the Ward (picture).



2ND Stage: 27th May 2005

- Application of External Fixator + distraction to correct the foot deformity.
- This was maintained for three months and the patient was allowed to walk.



Thereafter, the patient was reviewed at the SOS Village residence at Varanasi in his own natural surroundings in Sept. 2010;



3RD Stage: 26th August 2014

 Healthy and elongated (grown with the age) fascio-cutaneous flap + matured SSG



- Post Traumatic hypoplasia of the muscle + soft tissue in the popliteal region and the anterior-lateral-posterior part of the calf / leg region.
- TA shortening + loss of function / muscle bulk of the muscles of the posterior / lateral compartment / un-opposed action of by the muscles of the medial compartment ₊ Limb Length discrepancy
- Loss of about 10 cms of the head / proximal shaft of the Fibula

 Good quality distal pulsations of the Anterior Tibial / Dorsalis Pedis Vessels (reconfirmed by the MR Angio)



It was decided to undertake the distraction of the short T A Tendon and to correct the angulation at the ankle joint.



- Application of External Fixator + distraction to correct the foot deformity.
- This was distracted / maintained for six weeks and the patient was not allowed to walk.



4TH Stage: 4th October 2014

Although the distraction process was satisfactory, but due to severe hypoplasia of the residual muscle of the region, tight / short TA tendon as well severe soft tissue shortage, it was decided to explore and to undertake microsurgical release of the previously repaired popliteal vessels / nerves as well to undertake Free Functioning Muscle Transfer as well soft tissue replacement i.e. Lat. Dorsi myo-cutaneous flap. The timing of the procedure was planned so as to take the advantage of the growth spurt in the following years.

- Exploration of the popliteal region and Identification of the lateral popliteal nerve and the sural nerve grafts used earlier
- Identification of the popliteal artery and the vein graft used earlier
- Release of the adherent soft tissue and previously placed fasciocutaneous flap
- Release of the origin / scars around of the hypoplastic muscle + soft tissue in the popliteal region and the anterior-lateral-posterior part of the calf / leg region.
- Re-adjustment of the External fixator to achieve full corrections of the ankle and the foot position to neutral position.
- Release of the TA + muscle bulk of the muscles of the posterior / lateral compartment



- Harvest of the large Lat. Dorsi myo-cutaneous flap
- Micro anastomosis between the recipient vessels + Flap pedicle.
- Nerve Cooptation between the nerve to Lat. Dorsi + Lat Popl. Nerve
- Loose fixation of the muscle flap recipient area + SSG on the flap



Post operatively, he was recovering well. 100% take of the skin grafts as well satisfactory healing of all the wounds.

Re-started further distraction after 3 weeks and he was provided with supporting walker and is advised to walk with support for next three months.

Depending upon the stability of the Ext. Fixator and the flap, second stage of the Reconstruction i.e. removal of the Ext. Fixator + Additional Neurotization + adjustment of the tension of the transferred muscle can be undertaken in around 3 - 4 months.



5TH Stage: 24th February 2015

Reviewed for adjustment of the Ext. Fixator and the flap and Additional Neurotization (supercharging) + adjustment of the muscle tension

• Exploration of the popliteal region and identification of the lateral popliteal nerve and the sural nerve grafts used earlier



- Identification of the artery and the vein anastomosis done earlier
- Release of the adherent soft tissue and previously placed L D flap
- Identification and harvest of the sparable branches of the sciatic nerve for supercharging innervation to the transferred LD muscle
- Microsurgical cooptation and use of tissue adhesive
- Re-adjustment of the External fixator to achieve full corrections of the ankle and the foot position to neutral position.

6TH Stage: 5th January 2016

Reviewed for removal of the Ext. Fixator+ adjustment of muscle tension

- Exploration of the popliteal region and identification of the lateral popliteal nerve and the sural nerve grafts used earlier
- Release of the adherent soft tissue and previously placed L D flap



- Identification and harvest of the sparable semi-tendinous group of muscles for supercharging the strength to the transferred LD muscle
- Cineplasty (surgical fitting of a lever to a muscle) reinforcement using the TFL strips and tenorrhaphy
- Advancement of the Flap and adjustment of the scar / fibrosis
- Removal of the External fixator.

Post operatively, he was recovering well as well satisfactory healing of all the wounds. **Started with gait training and provided with duly fitted corrective foot wears.**

I am very happy that this boy is now 13 years old and is living and playing like a normal child, he is very thankful to the micro-surgical process as well as to the NGO looking after him so nicely. This is a gift of micro-surgery to a child which otherwise, despite being unwanted, being thrown at the tender age of 4 hours and despite being attacked by the wild animal, has survived. Thirteen years after a newborn boy was abandoned in the fields near Varanasi and was mauled by a wild animal, 12 doctors from the Bombay Hospital performed a pathbreaking surgery to finally reconstruct his once-tattered right leg. Boy from Varanasi in UP had undergone a marathon 28-hour supra major surgery on his right leg. Two anesthetists, two pediatric surgeons, three orthopedic surgeons, five plastic surgeons, and 12 nursing staff were part of the team to conduct the surgery. Within hours of being born, with his umbilical cord still attached to him, Manish was abandoned in a sugarcane field in a village near Varanasi.



Summery;

On August 1, 2003, at around 6:00 AM, a newborn baby was found abandoned in the field in a village, Varanasi by villagers. He was covered in blood and had serious injuries in his thigh and calf muscles. The boy was taken to the Chaubeypur police station and then to SOS Balgram. He was given primary treatment at the Benaras Hindu University's Institute of Medical Sciences after which the baby was handed over to Nirmala Singh, a woman who works for the NGO. **"The baby was a few hours old. His umbilical cord was not even cut**," said Nirmala.

Dr. Gupta undertook specialized microsurgical reconstruction including replacement of the lost muscle and skin bulk along with transfer of dispensable nerves and vessels and using them for restoration of continuity of the damaged segment of the nerve / vessel.

From then onward started Manish's miraculous journey from the brink of death to now, final recovery and a healthy life. As Informed, he just passed his SSC Board scoring 92% Marks. At present, he stays in the shelter of SOS Children's Villages of India, an NGO working towards the welfare of the poor and needy children at Varanasi.

In functioning muscle transfer surgical procedure, we need to take blood vessels from other parts of his body and attach it to his right thigh and calf to do the corrective surgery. According to his height and growth, we need to do the surgery after a certain age.

Boy was all praise for the doctors. "It is thanks to my earlier surgeries that I am able to walk... There is still a slight bend in my leg and doctors have said my leg would be perfect after this surgery," he said.

His foster mother said she's been with Manish since Day 1. "He is very courageous... He is good in studies. We are thankful to the Bombay hospital administration and the team of doctors who are very cooperative." Singh too is with the SOS Children's Villages at Varanasi. Bombay hospital has decided to do the entire surgery free of cost.

Manish is 15 years old, a bubbling and cherubic boy today, recovering happily at the SOS CHILDREN'S VILLLAGE at Varanasi.