

SPINE EDUCATION AND RESEARCH FOUNDATION

Activities Report of Operation Straight Spine

2013 Kolkata, India

Jeff McConnell, MD

2/27/2013



Activities report for Operation Straight Spine during February 2013 in Kolkata, India. This report includes a description of the surgeries performed on patients with a variety of spinal maladies.

TEAM MEMBERS FOR OSS 2013:

INDIA: Ujjwal K Debnath, FRCS – Orthopaedic Spine Surgeon

UK: Neena Seth – Consultant Anaesthesiologist

Naveen – Consultant Anaesthesiologist

Kate Masters, RN – Scrub Nurse

Rachel Hunt, RN – Paediatric Nurse Specialists

US: Jeff McConnell, MD – Orthopaedic Spine Surgeon

Bobby Bhatti, MD – Orthopaedic Spine Surgeon

Holly Taviani, RN – Neuroscience Nurse Specialist

Johanna Ziegler, CST – OR Scrub Tech

Chelsea Naddeo, RN, BSN – Neuromonitoring Specialist

Dan Welsh – Globus Medical Representative



15-16 FEB 2013

US team consisting of Jeff McConnell, MD, Holly Tavianini, RN, Johanna Zeigler, CST, Chelsea Naddeo, RN, BSN and Dan Welsh arrive in Kolkata from New York (via Dubai, UAE) on Emirates Airlines at 19:15. The team is met by Dr. Debnath at the airport and we travel to the Tollygunge Club where the team will stay for the coming two weeks.

17FEB 2013

Ramakrishna Mission Hospital: The first day is spent gathering our supplies shipped from the US and organizing the store room. Some of the boxes were held up in customs. Dr. Debnath went to the airport customs warehouse and was able to acquire most of the supplies with some items held back until final customs clearance could be achieved. Sorted out equipment in the store room including the many boxes of implants and instruments shipped to RKMSH by Globus Medical from Audubon, PA. We make rounds on the various wards to assess the patients who are admitted for surgery over the next two weeks. Patients included several young children with congenital scoliosis and early onset scoliosis.

With as much sorting work that could be done that day we returned to the Tollygunge club to prepare for dinner.

Later that evening the team from the UK finally arrives after missing their connecting flight in Dubai, delaying them for a full 24 hours.

18 FEB 2012

First Day of surgery at RMSP.

1. Ranga Mukherjee, 18 yo female with right L4-5 disc herniation and severe sciatic scoliosis. Her sciatic curvature was so severe that she was thought initially to have a true scoliosis. Surgery consisted of right L4-5 hemilaminotomy and discectomy.
2. Rupam Pal, 4 yo male. This patient had been operated on previously in 2012 for severe congenital scoliosis of the lumbar spine involving multiple vertebral anomalies including an ipsilateral bar and contralateral hemivertebra. He had significant pelvic obliquity complicated by leg length discrepancy. Our goal was to improve alignment, especially kyphosis of the lumbar spine, and arrest growth on the convexity via a hemivertebrectomy at the L3 level. We stabilized the spine with cervical lateral mass screws and 3.5mm rod. On this occasion his two Protex screws and rod were removed.
3. Ankita Panja, 6 yo female. Previously operated on by OSS in 2009 for Tuberculosis of the spine. At that time she underwent anterior T9 and T10

corpectomy via thoracotomy + spinal cord decompression and abscess drainage + posterior stabilization with cervical implants from T7 to T12. She did well after the surgery and made full neurologic recovery. On this occasion we removed the posterior hardware.

19 FEB 2013

4. Ira Manna, 43 yo female. Tuberculosis of the spine with destruction of T10 and spinal cord compression with profound neurologic deficit. She was unable to walk for the past 5 months. Only remaining function in the legs was minimal movement of the toes on the right foot. She required two-stage surgery with posterior stabilization, instrumentation and fusion from T5 to T11 followed by anterior thoracotomy, T10 corpectomy, decompression of spinal cord, abscess drainage and placement of expandable titanium cage T9 to T11 with grafting.

Returned to Tollygunge Club for dinner.

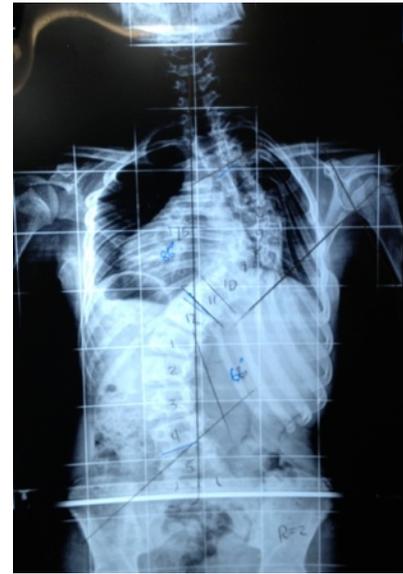
20 FEB 2013

5. Sayantani Gosh, 14 yo female with 75 degree right thoracic scoliosis. Surgery consisted of posterior correction with instrumentation and fusion from T3 to T12.



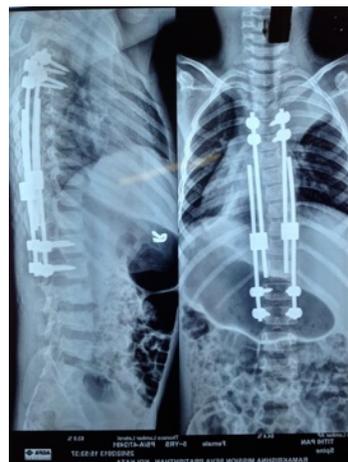
21 FEB 2013

6. Garima Murma, 9 yo female with right thoracic scoliosis of 86 degrees. Surgery consisted of posterior correction, instrumentation and fusion from T3-T12.
7. Dilip Jana, 14 yo male with right thoracic kyphoscoliosis of 50 degrees. Surgery consisted of posterior correction, instrumentation and fusion from T3 to T11.



22 FEB 2013

8. Ritom Mitra, 3 year old boy Previously operated on in 2012. He had multiple congenital anomalies including left fibular hemimelia, mild hydrocephalus, absent kidney, hypospadias, T11 hemivertebra, T10 butterfly vertebrae and semi-segmented hemivertebra at T9. The vertebral anomalies caused a 66 degree kyphoscoliosis. Initial surgery consisted of T11 hemivertebrectomy and instrumentation with Protex CT cervical screws and rods from T9 to T12 plus fusion. He had a very stormy postoperative course in 2012 with prolonged stay in the ICU. He did have increasing curvature of the spine with 53 degrees over the year and now needed a second hemivertebra removed with reinstrumentation and placement of growing rod construct. Surgery on this occasion included removal of the T11 hemivertebra, fusion and instrumentation from T7 or T8 to T12.
9. Tithi Pan, 5 year old girl with early onset thoracic scoliosis of 42 degrees. Surgery consisted of insertion of growing rod construct from T4/5 to L1/2 with fusion of the proximal and distal screw foundations. Four rods were used with side-by-side connectors in the middle. A local company provided the implants which were just "OK".



We finish very late that evening. From the hospital we travel to Dr. Debnath's home where his mother has prepared a traditional Bengali meal. We tour the newly remodeled roof top terrace of Dr. Debnath's home. The meal is delicious. We head back to the Tollygunge club and everyone is exhausted.

23 FEB 2013

10. Dipankar Halder, 7 year old male with early onset thoracic scoliosis of 30 degrees. Surgery consisted of placement of growing rod construct from T4/5 to L1/L2. During the procedure neuromonitoring signals were lost in the lower extremities. This occurred after placement of the T4 screw on the right side. After removing the screw the monitoring signals returned within 5 minutes. The T5 screw was placed without a problem and the two proximal rods were cross linked together. The operation was completed successfully.

24 FEB 2013

11. Neal Lama, 7 year old male with congenital right thoracic scoliosis, absent ribs on the right hemithorax, L1-2 syrinx and a tethered spinal cord at L3. He was previously operated on in 2012 and had convex fusion at the apex of the curve and placement of "growing" rod construct on the left side with cervical lateral mass screws and 3.7mm rod at T10 and T11 and hook claw over the third rib on the left. Unfortunately he was unable to be lengthened over the past year. On this occasion surgery included sectioning of the filum terminale at L5-S1 and release of the tethered cord by a local neurosurgeon. The second part of the procedure included removal of the old instrumentation (which had lost purchase at the proximal rib claw) insertion of bilateral growing rod construct with T2 screw-hook claw and T10-11 screw distal foundation.

Bobby Bhatti, MD, spine surgeon from Atlanta, Georgia joins the OSS team. The week prior he was at his cousin's wedding in Mumbai, India

25 FEB 2013

12. Arati Mukherjee, 66 year old female with Tuberculosis of the L1 vertebrae. Although she was neurologically intact her spine was unstable and she was unable to ambulate or even sit up for several months prior to surgery. Surgery consisted of posterior correction of kyphosis and instrumented fusion from T11 to L3 and a second stage procedure with L1 corpectomy via 11th rib resection, decompression of the spinal canal, placement of expandable cage and fusion from T12 to L2.



To our dismay, Neena Seth must depart back to the UK. She will be sorely missed. Anaesthesia will now be administered by two senior anaesthesia residents that have been working with us intermittently over the past week.

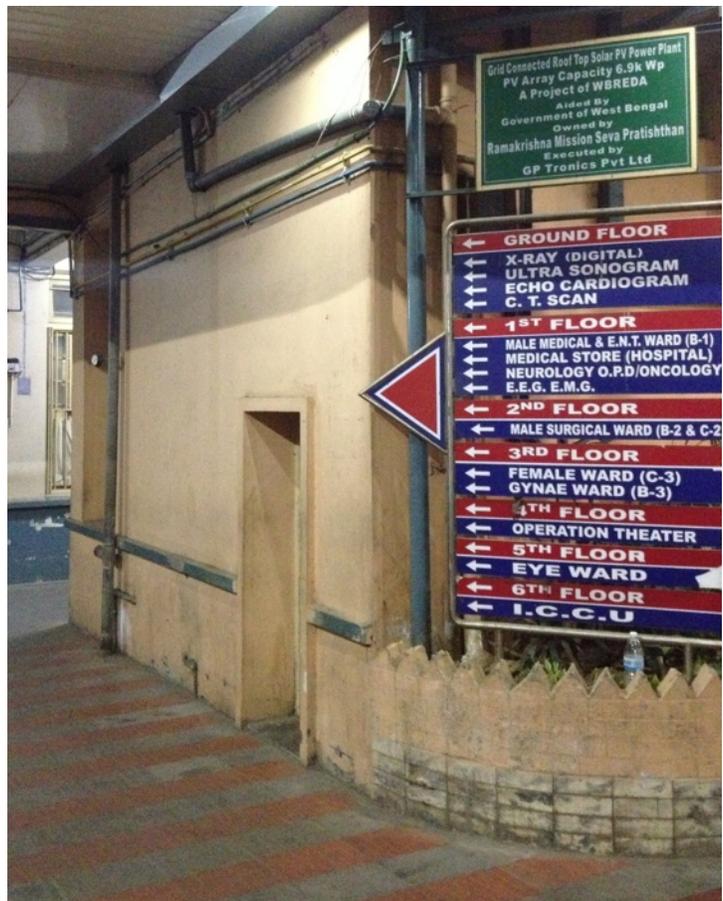
26 FEB 13

13. Pratima Mukherjee, 70 year old female severe spinal stenosis at L3-4 and L4-5, DDD and moderate stenosis at L5-S1. Surgery consisted of posterior decompression and TLIF fusion at L3-4 and L4-5, decompression at L5-S1 and posterior instrumentation L3-S1.

14. Amitava Roy, 41 year old male. He had surgery 6 weeks earlier for left herniated lumbar disc at L5-S1. He developed increased low back pain and recurrent leg pain. MRI revealed discitis at L5-S1 with posterior fluid collection. Operation consisted of an anterior L5-S1 discectomy, debridement and ALIF with two 13mm titanium cages. Second stage of the procedure consisted of posterior stabilization with pedicle screws and rods L5-S1 inserted via bilateral Wiltse approach.

Due to lack of senior anaesthesia consultant support our two anaesthesia residents who have been working hard all week are reluctant to continue doing additional cases. I believe they are just physically and mentally exhausted from all the work they have been doing with us these past days. We decide to suspend further surgical cases for the week.

We pack up our supplies and instruments and return them to the store room. Myself and the orthopaedic residents complete ward rounds on all the remaining patients and all are doing quite well.



Knowing that we still have three days remaining in India we decide to make a journey to the foothills of the Himalaya mountains for a little rest and relaxation. On 27 FEB we depart from Kolkata airport (almost missing our flight) for a one hour flight north to Bagdogra. There we are taken in two cars to the Cochrane House, about a 2 hour drive from the airport. The drive takes past many tea gardens (plantations) and up some very steep, winding, switch-back roads to the top of a mountain where the Cochrane house sits atop a narrow ridge line. We arrive in time for a late lunch. The view from the house is spectacular and the air is crisp and cool. The Cochrane House is a great place to wind down from our stressful 10 straight days of operating.

The next morning several of the team members, including myself decide to go for an early morning hike and watch the sunrise over the mountains. While traversing the steep hillside on a very narrow path I tripped and fell injuring my left knee which results in a complete distal quadriceps tendon rupture. I am assisted off the mountain by fellow team members and evacuated the remaining way off the mountain on an old army stretcher carried by four local men. Later that day most of the team makes a trip to Darjeeling where they ride a narrow gauge railway to visit a Buddhist monastery.



On March 1st we depart for the long journey home. I am in a knee immobilizer and on crutches for the journey. After one hour, five hour and 14 hour plane rides we finally reach the US. We are all sad to leave India but glad to be home. The shuttle bus takes us straight from JFK to St. Luke's Hospital in Allentown where I say goodbye to the rest of the team and go straight to surgery to have my quadriceps tendon repaired. Knowing all the patients we helped during our trip, it certainly was worth the trouble.



Jeff McConnell, MD

