

APSS Depuy Synthes Spine Travelling Fellowship 2014 Report

(26th October to 16th November, 2014)

Group 2

Members

Dr. Dipak Shrestha (Nepal)

Dr. Ryoji Yamasaki (Japan)

Dr. Lau Sun Wing, Cary (Hong Kong)

Dr. Manish Chadha (India)

Sarawak General Hospital, Kuching, Malaysia (26th Oct-2nd Nov 2014)

Arrival Day 0, 26th October

Arrival in Kuching Sarawak at 1'o clock at mid night and checked in at Hotel Mardeka Palace.



Fig 1. Hotel Mardeka Palace, Kuching

Day 1, 27th October

I met other three fellows Dr Manish Chadda from India, Dr Ryoji Yamasaki from Japan and Dr Lau from Hong Kong in the hotel after breakfast. We went to Sarawak General Hospital together where Mrs Dency Song, personal secretary of Dr Wong Chung Check, received us. She gave us our identity cards. Then we went to Operation Theater and got introduced with staff of spine unit. I scrubbed in the case of Degenerative Lumbar spine L3-L5 that was planned for TLIF. Another case was again TLIF for L5-S1 spondylolisthesis. Dr Wong shared tips and trick of TLIF and pedicle screw insertion in lumbar spine with us. After delicious lunch at the local club restaurant, Dr Wong demonstrated two case of vertebroplasty and another case of transforaminl nerve root block. After busy first day in Sarawak General Hospital, representative from Depuy-Synthes invited us along with other Spine staffs in local seafood restaurant.



Fig 2. TLIF L4, L5, S1

Day 2, 28th October

In the morning, we went to another town of Sarawak, called Sibuan by one-hour flight. After short visit to local Chinese temple and river banks and lunch at Chinese restaurant,



Fig 3. Dr Wong and team performing TLIF

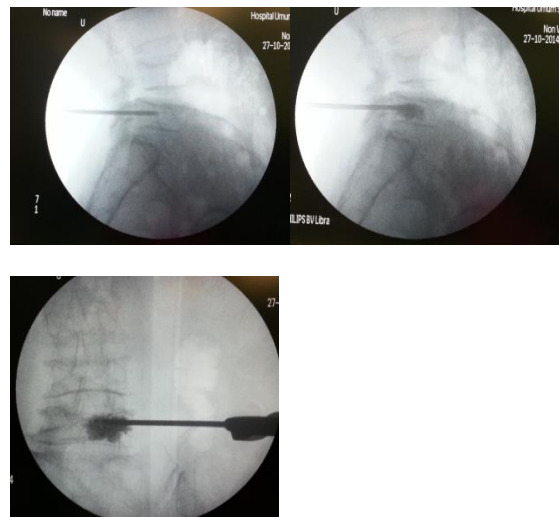


Fig 4. Vertebroplasty

we attended spine clinic with Dr Wong and discussed follow up patients who were treated for Adolescent idiopathic scoliosis (AIS), degenerative lumbar spine, infective

spondylitis and other spine problems. At the late evening, Dr Wong performed corrective osteotomy for post traumatic pseudoarthrosis with kyphosis of D12 vertebrae. This technique of insertion of bone graft filled mashed cage in to the osteotomy site were very impressive. Next day morning we observed another case of corrective osteotomy surgery for D12 kyphotic deformity with in patient with ankylosing spondylitis and one other case TLIF for L5-S1 degenerative spine. In between surgeries, Dr Wong presented two interesting topics on sequential segmental direct vertebral vertical rotation method of scoliosis correction and biomechanical comparison of mono axial and poly axial pedicle screws. Before returning to Kuching, we had experience of foot massage at local parlor.



Fig 5. Sibu

Day 3, 30th October

There were two cases of AIS in Sarwak General Hospital. In the 1st case, I scrubbed with Dr Wong and learned funneling technique of free hand thoracic pedicle screw insertion in AIS.

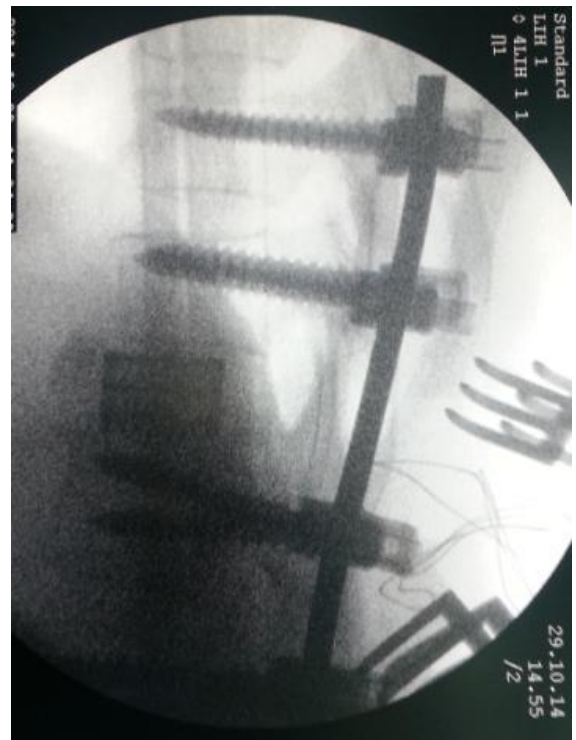


Fig.6 Corrective osteotomy for post-traumatic pseudoarthrosis with D12 kyphosis



Fig 7. Pre-operative planning for AIS

Dr Wong demonstrated sequential segmental direct vertebral vertical rotation method of scoliosis correction. In between cases, we had traditional Malaysian lunch at local restaurant along. We had also opportunity to visit orthopedic ward where we discussed post operative Xrays of previous cases and other interesting cases admitted in the ward such an management of post operative infection. In the evening, we were invited at local pub by Dr Wong



Fig 8. Group photograph with Dr Wong

Day 4, 31st October

We had presentation by travelling fellow in the morning. I presented of my experience of cranio- cervical and atlanto-axial instrumentation. After the presentation by travelling fellows, official attachment with Dr Wong came to the end. In the afternoon, we went to Dahu cultural village where we observed traditional performance by local people and different types of houses such as long house, big house used by traditional Borneo people. Then we had boat trip and had opportunity to see crocodile, proboscis monkey in wild and twinkling insects in the bushes.

Day 5, 1st November

It was Saturday. Dr Ryoji and I went to forest, about one hour drive from Kuching where Orangutan, one of the intelligent apes, was kept in semi captivity. We spent day time in the Sarawak museum.



Fig 9. Long house in cultural village



Fig 10. Orangutan in wildlife century



Fig 11. In front of wildlife century with Dr Ryoji

Chang Gung Memorial Hospital, Taipei, Taiwan

(2nd – 9th Nov 2014)

Day 6, 2nd November

We left Kuching early in the morning for Taiwan and arrived at Taipei in the afternoon and we checked in Fullon Hotel, Linkou.



Fig 12. Chang Gung Memorial Hospital, Linkou, Taipei

Day 7, 3rd November

We were received by Prof. Wen-Jr Chen in the orthopedic ward of Chang Gung Memorial Hospital, Chang Gung University Hospital and we had discussion on some interesting X rays, followed by brief ward round. Then, we went to operation theater where we observed two cases of antero-lateral approach for lumbar spine for revision cases of infections of lumbar spine and one case of TLIF for Degenerative lumbar spine. Number and slandered of spine surgery in Chang Gung Memorial Hospital was very impressive and we were told that about 2500 spine surgeries are performed each year. Use of allogenic bone graft from bone

bank and use of dynamic posterior instrumentation was new technique for me. Spinal cord monitoring including EMG was also new experience for me.

Day 8, 4th November

In the morning, we gathered for morning conference of orthopedic department where resident presented different topic including management of Back pain. On 2nd day, we



Fig 13. Prof Wen-Jr Chen with residents in orthopedic ward

observed AIS and I was very impressed with technique of thoracic pedicle screw insertion. Average time for one thoracic pedicle screw insertion was 60 seconds. All the scrubbed nurses and the assistants were so much tuned for surgery that there was hardly any lapses of time in between different steps of surgery. Similarly we observed another two cases of TLIF. Another case was cervical myelopathy with multiple level stenosis for which laminoplasty was performed using ultrasonic bone scalpel (Mesonix) and it was my first time to observe ultrasonic bone scalpel (Mesonix) in patient.

In the evening, we went to at local night market to enjoy local Chinese foods

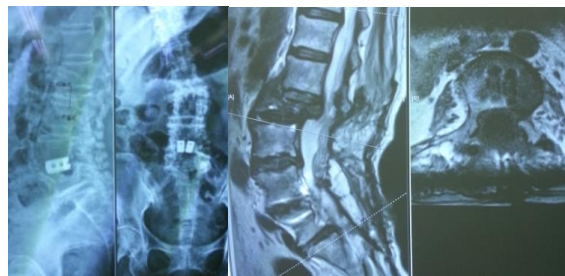


Fig 14. Antero-lateral retro-pleural approach for anterior corpectomy and anterior column reconstruction with allogenic humeral graft

Day 9, 5th November

We observed one case of ACDF for C5 C6 disc herniation and another case of TLIF without removing midline structures including spinous process and spinous

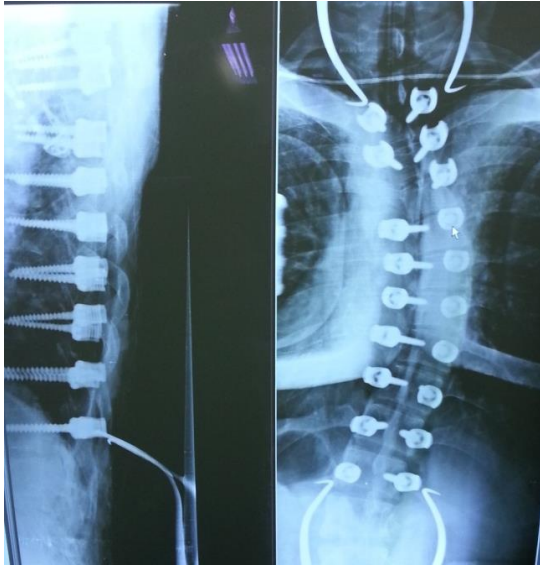


Fig 15. Scoliosis surgery in progress

ligament. In the evening, we went Taipei 101 building and enjoyed Dumplings in dinner.



Fig16. Evening at Taipei 101 tower

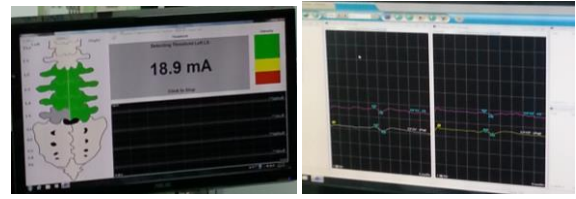


Fig 17. EMG and SSEP monitoring

Day 10, 6th November

We observed a case of excision of suspected meningioma of thoracic spine using ultrasound scalpel. Another case was antero-lateral approach for revision case of infective discitis of lumbar spine. There were two case of vertebroplasty using normal bone cement mixed with barium for radio-opacity.



Fig 18. Vertebroplasty with normal bone cement mixed with barium powder.

Day 11, 7th November

We participated in live surgery work shop on dynamic posterior stabilization system and Tantalum cervical cage. There were three live surgeries during workshop and four lectures. In the evening we were invited for Gala dinner along with other members of

spine unit of Chang Gung Memorial Hospital



Fig 19. Group photograph with Prof Wen-Jr during gala dinner

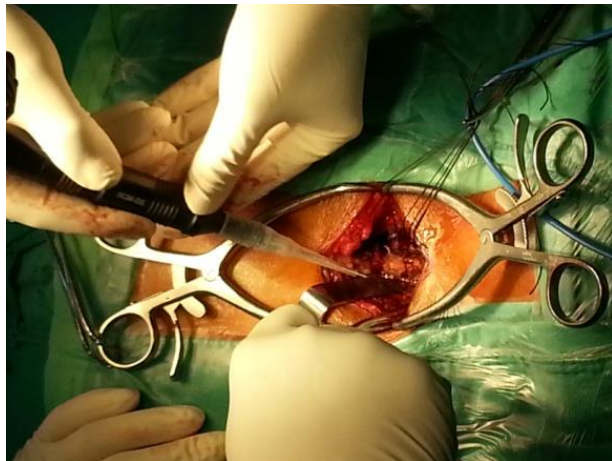


Fig 20. Ultrasound scalpel for laminoplasty



Fig 21. Suspected meningioma excised with clear margin using ultrasound scalpel



Fig 22. ACDF with tantalum cervical cage

Day 12, 8th November

It was Saturday and we went to National museum, Taipei where we observed many ancient artifacts.



Fig 23. In front of National Museum

**Gifu Municipality Hospital,
Gifu, Japan (9th-16th Nov 2014)**

Day 13, 9th November

We left Taipei for Nagoya, Japan. From Nagoya, we went Gifu by JR railway. We checked in Hotel Comfort Inn in Gifu.



Fig 24. In front of Gifu Municipality Hospital

Day 14, 10th November

We went to Gifu Municipality Hospital along with Miss Hiroka Kawakami, personal secretary Prof. Katsuji Shimizu. We met Prof Shimizu in operation theaters where he demonstrated a case of cervical myelopathy for which Prof. performed hybrid fixation after one level corpectomy and one level discectomy and he used autologous fibular bone graft. Another case was posterior foraminotomy for cervical radicular pain.

Day 15, 11th November

We spent day time in OPD with Prof. Shimizu where we discussed many follow up cases of ACDF and scoliosis surgery. In the evening, we had presentation to resident and other staff of Gifu University Hospital and Gifu municipality hospital. I presented about medical education system of Nepal and one interesting case of hydatid cyst of spine.

Day 16, 12th November

Prof Shimizu took us for Hiking on the way to Gifu castle and other sight seeing



Fig25. In Spine Clinic in Gifu Memorial Hospital



Fig 26. Topic presentation by fellows

places such as Gifu museum and Buddha statue. After lunch, Prof Shimizu presented

about anterior cervical spine surgery and use of hybrid system for fixation. In the evening, we went to onsen, Japanese Hot spring.

Day 17, 13th November

Prof Shimiju demonstred revision surgery for adult onset scoliosis using Spine Guard , an instrument which gives audio feed back if pedicle wall is violated while preparing tract for pedicle screws. We also practiced Spine Guard in a saw bone. In the evening, we tried traditional Japanese cuisine in local restaurant.



Fig 27. View from Gifu castle



Fig 28. Japanese dinner with fellows

Day 18, 14th November

After spine clinic in OPD with Prof. Shimiju, we went to meet mayor of Gifu municipality where we were welcomed by mayor. We briefed him about our purpose of visit in Gifu as a travelling fellow. He was happy to see all of us in Gifu. We were invited by Prof. Shimiju for dinner in his home where we met Mrs. Shimiju. She was generous enough to offer delicious Japanese food for all of us.

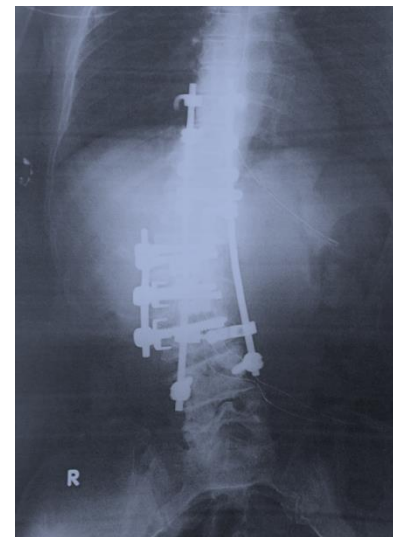


Fig 29. Revision adult onset scoliosis surgery

Day 19, 15th November

We bid farewell to Dr Ryoji and Dr Lau because they were living one day earlier than me and Dr Manish. We went to Nagoya city for sight-seeing where we visited Nagoya castle, Nagoya tower and other tourist center.



Fig 30. Practicing Pediguard on model bone



Fig 31. Dinner in Prof Schimizu's home

Last day

Day 20, 16th November

I left Nagoya in the morning for Kathmandu. My transit was Hong Kong and Dhaka. I arrived in Kathmandu at 10 'o clock night on 16th November.

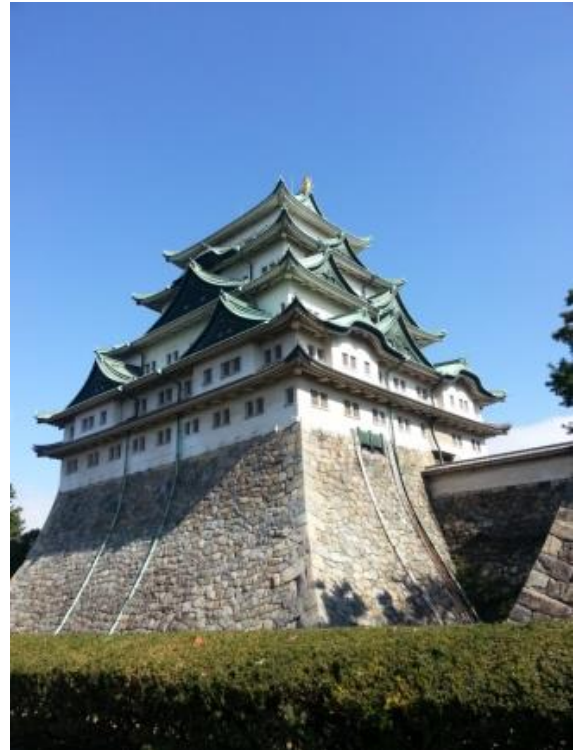


Fig 32. Nagoya castle

Remarks

APSS Deputy Synthes Spine Travelling Fellowship 2014 (26th October to 16th November, 2014) was an unique opportunity for me to learn and observe some of the modern and standard technique of spinal surgery and care such as spinal cord monitoring and EMG monitoring. During this fellowship period, I observed some of the instruments and techniques being used in patients, which otherwise I have only read in the journals or seen in the exhibition hall during conferences. For example use of ultrasonic scalpel and Spine guard etc. Sharing experiences with fellow

colleagues and the faculties on different varieties of spine cases has widened my horizon of approaching to patients with spinal problems and I feel certainly more confident on dealing with patients. The tip and tricks of pedicle instrumentation that was taught by faculties cannot be compared with knowledge we can get from the textbooks. One needs to spend time with the surgeon himself or herself to learn this experiences. Besides academics achievements, social interaction with other team members and staffs of the each hospital were unforgettable. It was also opportunity for me to know different culture and people in South east Asia. Being a member of APSS and APOA, I learned common goals of spine surgeon; that is to treat patient with optimal care which is available to you and your hospital.

I would like to thank Dr Wang, Dr Wen Jr Chen and Prof Shimizu for their his deep interest to teach from basics to advance concept of surgery; for opportunity of social interaction and warm hospitality. Similarly, my sincere thanks to Miss Cheryl for smooth co ordination of our travelling fellowship.

Finally, I feel proud and honored to be a member of APSS and APOA.

Presented by

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