

Report for the APSS - Depuy Synthes Spine Clinical Fellowship 2013

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Tower Block Level 11, 1E Kent Ridge Road, Singapore 119228
Duration: 10-30 November 2013

Visited Centers:

- (1) National University Hospital (NUH)
- (2) Singapore General Hospital
- (3) Tan Tock Seng Hospital

The Asia Pacific Spine Society (APSS) - Depuysynthes Spine Clinical Fellowship 2013 took place from 10 to 30 November 2013. I had the opportunity to be a fellow of Prof. Wong Hee Kit for 3 weeks at National University Hospital (NUH), Singapore. I have to say that I was so lucky to study with him and his team. After 2 hours flight, I arrived at Singapore in the afternoon of 10 Nov. Everything had been arranged before my arrival by Prof Gabriel Liu and Ms Sarojeni. I went to the Santa Grand East Coast Hotel after a 20-minute taxi driving.

Besides me, there were three APSS travelling fellows. Dr Hyun Kee Yang and Dr Park Dae-Hyun came from South Korea. The other one was Dr Ed Simor Khan bin Mor Japar Khan from Malasia. They did various cases previously: corrective osteotomy in ankylosing spondylitis, reconstructive and revision of scoliosis, degenerative and spinal tumor surgery. I was lucky to meet them, because they could tell me what I should do from their experience. It was nice to mingle with them. During the first week that we attended the same program together, they showed me the way they did the surgery: the principles of fixing the implant into the spine, tips and tricks, and the risk and complication of the operation.

On 11 November 2013, the first day of my fellowship, I went to the Tower block National University of Singapore to join the morning activity conference. The travelling fellow showed their presentations then Prof Gabriel Liu briefed us on the details of the department. He also introduced us to the staff and, gave our daily schedule. Prof Wong Hee kit and his colleagues not only shared me their knowledge of spine diseases, they also took care of my traveling, accommodations, and meals (Figure 1).



Figure 1 show dinner at Chinese restaurant with Prof Gabriel Liu and travelling fellows (Left), Dinner at Penang food restaurant with Prof Wong Hee kit and travelling fellows (Right)

After I finished the first week, I moved to King Edward VII Hall that is medical student dormitory. The hall is about 10 minutes walk from hospital so it is easy to reach the hospital at any time.

During the stay, I participated in operating theater in Monday to Wednesday and outpatient clinic in Friday with Prof Wong Hee kit. There have been several cases of scoliosis surgery and revision surgery for adjacent segment syndrome during my stay. It was the first time that I joined the thoracoscopic scoliosis correction. I have learned how to use thoracoscope and performed anterior transthoracic approach from my supervisor. I learnt many new techniques and tips in spine surgery. I had the chance to improve my skills in scoliosis correction surgeries and I need to say it was a conceptual awakening for me in many aspects. Moreover, I had the chance to clarify my doubts when assisted in all kinds of spinal osteotomies including SPOs, PSO's and VCR's. I also visited the operations of spine diseases performed by other Profs sometimes. It was a treat to watch, learn, and assist with procedures under the guidance of these professionals. Prof Gabriel Liu who is a calm and composed character works almost 12-13 hours per day in the theater. He is always guiding, encouraging, smiling and performing surgeries with an artistic approach under the microscope. I think that observing Prof Gabriel Liu's skills and listening to his opinions on minimal invasive spine surgery in

thoracolumbar spine fracture is a valuable experience for me. Prof Naresh Kumar and Prof Thambiah performed their surgeries to perfection and precision. I tried to learn both the professional skills from them. As an APSS Fellow I was allowed to scrub in and join at the table for assistance in some the cases of spine surgery. I had an opportunity to assist 7 cases and observe another 8 cases during my fellowship program(Figure 2).



Figure 2 show scrub in Prof Gabriel Liu's case

There was a clinical presentation, department pre-op meeting and interesting cases that were presented by all the residents followed by discussion every Thursday (Figure 3). I learned a lot to know how to make decisions for every case and what the goal is and reasons behind it. I would say that this was the most important periodic event which contributed to majority of my learning. So I learned not only the technique but also the idea of management. What you can do, what you should do and what is the best way you choose, that is very important. I have changed some of my idea after these 3 weeks. Ward round that was conducted by Prof Wong Hee was scheduled after spine round finished.

This centre was visited by lots of young spine fellows from different part of the world. I got really good friends whom I worked as colleges and shared and respect different cultures and values. I also made good friend with clinical fellow, Dr Fengjing, from China.



Figure 3 show spine round presented by medical officer and registrar at Thursday

I had an opportunity to visit various conferences and centers. I was particularly impressed by orthopedic department at Tan Toc Seng Hospital and Singapore General Hospital. I attended a cadaveric course organized by Metronics at NUH.

After a long day of operation or on the weekends, I had the chance to see the beauty of this country such as Merlion at Marina Bay, Marina garden and China town(Figure 4) . It was a very busy city which was alive 24 hours. During the exploration of the city, I also got the chance to mingle and get along with travelling fellows and staff members.



Figure 4 show Merlion,the mascot of Singapore, with travelling fellows

It was overall a great experience learning from Prof Wong Hee kit who is a very pleasant and skillful surgeon. His vast knowledge and experience is what makes him outstanding. He is a very amicable person and has a very helping attitude so I could talk anything with him freely (Figure 5). Most of the subjects of what we talked were the diagnosis, examination, treatment and rehabilitation of spine diseases, especially about the scoliosis. He also asked me for my opinion on the treatment plan for the patient sometimes. When I told him about my ideas, he would tell me his plan and his reasons. His answer is always helpful. I have learned so much more on the knowledge of spine disease from him. Professor gave the opportunity to join his operation and I scrubbed in his surgeries. His technique of spinal surgery is amazing especially thoracoscopic surgery. The technique of pedicle screw fixation with pediguard is fast, safe and accurate. Undoubtedly, the spine center in the NUH is an ideal place for APSS fellowship and I would recommend to other fellows to apply for a chance to study there. You will not regret.



Figure 5 show photo with Prof Wong Hee kit

I was very appreciated with this APSS fellowship. I am grateful to with Professor Wong Hee Kit, Prof Grabel Liu and NUH spine surgery team for their honest, kindness, and warm reception. Thanks Dr Leslie Ng, Dr John, Dr Glen Liau, Dr Zackery Chua, Dr Wu Pang Hung, Ms Eunice Mok for their help during my stay in Singapore. Finally, I would thank the APSS Spine section especially Prof Chareon Chotikavanich and Prof Mun Keong Kwan for selecting me for this fellowship program and providing with the great opportunity. A final word of appreciation for Ms Kong, Ms Helen Chong and Ms Sarojeni for co-ordinating the fellowship program.

Date	Day	Age	Gender	Diagnosis	Procedure	Surgeon	Role	Hospital
11/11/2013	Mon	13	M	AIS	Deformity correction with pedicular screw rod instrumentation T2-12-	Prof Wong HK	Observer	NUH
		39	F	HNP L5S1	Microdiscectomy	A/Prof Gabriel Liu	Observer	NUH
12/11/2013	Tues	12	F	AIS	Thoracoscopic deformity correction with anterior instrumentation T5-L1	Prof Wong HK	Observer	NUH
		60	F	Adjacent level degen L5 S1 with spinal stenosis	Decompressive laminectomy with pedicular screw instrumentation L5S1	Prof Wong HK	Observer	NUH
13/11/2013	Wed	46	M	Flexion distraction fracture	Percutaneous pedicular screw instrumentation T – L	A/Prof Gabriel Liu	Observer	NUH
15/11/2013	Fri	65	F	Degenerative scoliosis L2-5	XLIF L2-4 , TLIF L4-5 with pedicular screw fixation	Dr Leslie Ng	Observer	Tan tock seng Hosp
18/11/2013	Mon	75	M	OPLL C7	Decompressive laminectomy with pedicular screw fixation and fusion C7-T1	Prof Wong HK	Observer	NUH
		70	M	TB cervical spine	ACCF C5-6 with iliac crest graft with anterior plating C4-C7	A/Prof Gabriel Liu	Assistant	NUH
19/11/2013	Tues	48	F	Metastasis spine disease T1-4 with cord compression T3	Decompressive laminectomy T3 with C5-T6 posterior instrumentation	A/Prof Gabriel Liu	Assistant	NUH
		65	F	Adjacent level degeneration L1-3 S/P L3-5 TLIF	DLIF L1-3 with PEEK cage and Ponte osteotomy L1-3 with pedicular screw fixation L1-3	Prof Wong HK	Assistant	NUH
20/11/2013	wed	70	M	TB cervical spine	Lateral mass screw C4- T1 with fusion	A/Prof Gabriel Liu	Assistant	NUH
23/11/2013	sat	75	M	OPLL C7 with epidural hematoma	Hematoma removal and decompressive laminectomy C6-T1	Prof Wong HK	Assistant	NUH

