

2019- APSS- SICOT Spine Fellowship Report

Fellow: Dr. S. Dilip Chand Raja., M.B.B.S., MS (Ortho)., DNB(Ortho)., FNB (Spine)

Senior Registrar, Department of Spine Surgery, Ganga Medical Centre and Hospitals Pvt Ltd,
Coimbatore, Tamilnadu, India- 641043

Visited Hospital: Evangelisches Waldkrankenhaus Spandau, Berlin, Germany

Duration of fellowship: August 1, 2019, to August 22, 2019

Arrival day: August 31, 2019

I thank the APSS and SICOT first of all for having arranged my travel and accommodation. I was a bit surprised by the timely emails from APSS regarding the VISA application process, stay arrangements, travel schedule, and about the fellowship program and especially about the inquiries regarding the comfort over there. I once again thank the secretariat office of APSS for making these arrangements so efficiently. On arrival at Tegel airport (TXL) at 10.30 A.M., Dr. Ralph Schernberger picked me up and drove to my residence which was at a walkable distance from the hospital. He was generous, soft-spoken, very communicative as well as caring. He briefed me about how to use public transport, and also suggested some tourist attractions. I was asked to arrive at the Hospital Reception next day at 7.15 A.M. Again, Dr. Ralph Schernberger was waiting for me, and he took me to the daily morning meeting room.

1. Daily Morning Meeting Session (7.20 A.M to 8.20 A.M)

The entire orthopedic team would gather daily in this session and the images to be discussed are projected on a large screen. A radiologist first runs through intraoperative fluoroscopic pictures of the surgeries performed on the day before and critical comments would be raised on the osteosynthesis performed. The resident orthopedic surgeons then inform about all the patients who were admitted the previous night. Their clinical scenario and image findings are discussed, and the next plan of action is charted out for them. Lastly, the images of patients posted for surgery on that working day are displayed, and the pre-operative plans are discussed. Following this daily routine, the team splits up into three to perform surgery, ward rounds, injection therapies and give opinions on referred cases from other departments.

2. Outpatient Clinic (Every Wednesday)

During my fellowship period, I had the opportunity to participate in the out-patient clinic for three days. Dr. Ralph would receive the patients and obtain clinical history, examine patients and opine on image findings. We got into useful discussions of what would be ideal to offer to these patients. He engaged me well, made me feel at home, and also was kind enough to introduce me to all his patients so that I could clarify my doubts from them. While reviewing the post-operative follow-up cases, I was briefed on the challenges they faced during surgery, and the rare complications were also discussed in depth.



Group photographs taken after morning meet. From Left to Right -Dr. Andre Roth, Dr. Ralph Schernberger, Prof. Ulrich Noeth (HOD), Myself, Dr. Miguel Alquiza (Chief of Spine services) and Dr. Matz Torsten.



A picture was taken in the operating room, when I assisted Dr. Ralph Schernberger (Left), and Dr. Miguel Alquiza (Centre) - in a case of Lumbar Disc Arthroplasty.

3. Injection therapy

It was a privilege for me to join the spine team daily after the completion of surgeries for injection therapy. They used to inject steroids in an outpatient procedure room either as a primary conservative measure or to identify the pain generator. Facet joint injections, Sacroiliac joint injections, selective nerve root blocks, Trigger point injections, and Epidural steroid injections were performed.

4. Ward Rounds

Every Monday, I used to join the spine team for ward rounds after the morning meeting. The wards were maintained perfectly. It was a no paper digital ward rounds, where the junior doctor walks into the room with a mobile computing platform. He would inspect the surgical wounds of post-operative patients and feed the clinical findings immediately into the medical software. Further, we had discussions about the operational plans for patients on the pending list.



(Left)-A view of hospital campus taken from an inpatient room. (Centre) - Computing platform used for daily rounds and documentation of health status of the patient. (Right)- A picture of inpatient room.

5. Ambulant daycare theatre

The spine department had one main operating room inside the Operating theatre complex where they carried out major spine procedures such as fusion, Cervical Laminectomy, Vertebroplasty, and Instrumentation. They also used to operate on minor cases simultaneously in the ambulant daycare theatre. Procedures such as Microdiscectomy, percutaneous Transpedicular biopsy, and endoscopic denervation were performed in this mini ambulant theatre.

6. Main Operating room

The operating room had all the types of equipment to perform complex spine surgeries, and on average they used to perform 3 cases per day. I was delighted that each of the members of the spine team would invite me to assist them and also allow me to actively participate in all the surgeries, during my fellowship. I had assisted a total of 23 cases, and each case was different and exciting. However, 4 cases were particularly more interesting to me. We had performed a three-level cervical disc arthroplasty for a young lady with cervical disc degeneration and myeloradiculopathy. In a case, of severe osteoporosis, cement augmentation was performed in the fenestrated pedicle screws along with Vertebroplasty at the fractured vertebra. In another example, it was nice to perform percutaneous long segment pedicle screw instrumentation in an unstable three-column fracture in Ankylosing spondylitis. The most interesting of all cases for me was to see the L5-S1 Disc replacement, performed through a paramedian approach in a young lady. A Conrad ring frame was used which helped in visualizing the disc space with great ease, and the disc arthroplasty was meticulously performed.



Preoperative and Intraoperative Images of a young lady who underwent Lumbar Disc Replacement

7. Presentation

On August 19, I was asked to give a presentation. I mainly spoke about my family, my hospital, and about my motherland in addition to scientific material. I gave an elaborate presentation on the Indian tradition and current economic status. The entire orthopedic team appreciated me for giving a different perspective of India. Prof. Ulrich Noeth and Dr. Miguel Alquiza were very happy and wished me well.



Pictures taken during my presentation at the hospital.

8. Conclusion

This fellowship was very useful for me and I thank Dr. Miguel Alquiza, the head of spine services at Evangelisches Waldkrankenhaus Spandau, Berlin, Germany for mentoring me during the fellowship. I also take this opportunity to thank Maxime Lemaire and Jenny Wong of the APSS office, the SICOT organization, the entire orthopedic and spine team of Evangelisches Waldkrankenhaus Spandau, especially, Dr. Ralph Schernberger, for having made my stay fruitful and peaceful during the whole fellowship period.

9. An operation logbook for all the cases

No	Date	Diagnosis	Surgery	Role	Surgeon
1	Aug 1	L4-L5 Fusion with Adjacent Segment Degeneration	L3-L4 TLIF + L5-S1 PLIF	Assistant	Dr. Miguel Alquiza
2	Aug 1	C4-C5, C5-C6,C6-C7 DDD with radiculopathy	C4-C5, C5-C6, and C6-C7 Total Disc Arthroplasty	Assistant	Dr. Miguel Alquiza
3	Aug 2	L4-L5 facet arthrosis	Endoscopic denervation	Assistant	Dr. Miguel Alquiza
4	Aug 2	L4-L5 Calcified Facetal Cyst	Microscopic decompression	Assistant	Dr. Ralph Schernberger
5	Aug 2	L4-L5,L5-S1 DDD with	L4-S1 Posterior	Assistant	Dr. Matz Torsten

		osteoporosis and stenosis	Instrumentation with cement augmentation + Decompression + PLF		
6	Aug 5	Odontoid fracture	C1-C2 Fusion (Harms & Goel)	Assistant	Dr. Ralph Schernberger
7	Aug 5	L3-L4 Lumbar canal stenosis	Over the top decompression	Assistant	Dr. Andre Roth
	Aug 5	Surgical wound dehiscence	Wound debridement	Assistant	Dr. Matz Torsten
9	Aug 8	C3-C4 DDD + OLF	C3-C4 Lateral mass instrumented laminectomy	Assistant	Dr. Matz Torsten
10	Aug 8	L4-L5 Recurrent Disc Prolapse	L4-L5 TLIF	Assistant	Dr. Matz Torsten
11	Aug 9	L4-L5 Recurrent Disc Prolapse	L4-L5 TLIF	Assistant	Dr. Ralph Schernberger
12	Aug 9	L5 Osteoporotic Collapse + L4-L5 Stenosis	L4-L5, L5 S1 Instrumentation with Cement augmentation + decompression + PLF	Assistant	Dr. Ralph Schernberger
13	Aug 12	L3-L4,L4-L5 DDD with osteoporosis	L3-L4, L4-L5 Instrumentation with Cement augmentation + PLF	Assistant	Dr. Matz Torsten
14	Aug 13	L4-L5 DDD with stenosis	L4-L5 TLIF	Assistant	Dr. Miguel Alquiza
15	Aug 13	L3-L4, L4-L5 stenosis	Microscopic decompression	Assistant	Dr. Miguel Alquiza
16	Aug 13	L5 Intraosseous abscess	Transpedicular Biopsy	Assistant	Dr. Matz Torsten
17	Aug 15	L5-S1 Disc Degeneration	L5-S1 Disc Replacement	Assistant	Dr. Miguel Alquiza
18	Aug 15	Thoracolumbar fracture	T11 to L2 Instrumentation	Assistant	Dr. Matz Torsten
19	Aug 16	Ankylosing spondylitis with Carrot Stick Fracture	Percutaneous T10 –L1 Posterior Instrumentation	Assistant	Dr. Ralph Schernberger
20	Aug 19	L5-S1 Pseudarthrosis	L3-L4 TLIF+L5-S1 PLIF + L4-L5 cage removal + autografting	Assistant	Dr. Miguel Alquiza
21	Aug 20	L5-S1 Disc Prolapse	Microdiscectomy	Assistant	Dr. Miguel Alquiza
22	Aug 20	L3-L4, L4-L5 DDD	L3-L4 TLIF + L4-L5 PLIF	Assistant	Dr. Ralph Schernberger
23	Aug 20	L5-S1 Lytic listhesis	L5-S1 PLIF	Assistant	Dr. Matz Torsten