#### **2019 APSS SICOT Spine Fellowship**

Azizul Akram Salim MBBS, MMed Ortho, AOSpine Fellowship (Hong Kong)

Host: Professor Cody Bünger from Department of Orthopaedics, Aarhus University Hospital, Aarhus, Denmark

Attachment period: 14<sup>th</sup> September 2019 – 6<sup>th</sup> October 2019

#### 1. Introduction

First and foremost, I would like to express my gratitude to the Almighty by giving me good health to undergo this prestigious fellowship. Also, I would like to thank the Asia Pacific Spine Society (APSS) and SICOT for selecting me for this wonderful training experience.

My name is Azizul Akram Salim from Spine and Spinal Cord Rehabilitation Unit, Department of Orthopaedics, Universiti Sains Malaysia, Kubang Kerian, Kelantan, Malaysia. I was offered to participate in this impressive fellowship after I went back from AOSpine Fellowship at the Queen Mary Hospital, University of Hong Kong. I was very thrilled when I was informed by APSS officer regarding this opportunity.

## 2. Hospital

The compound of the hospital is very large. Since it is the biggest hospital in Europe, it has many buildings and entrance. Department of Orthopaedic's entrance is at Indgang J. During my first day at the hospital, Dr Kestusis brought me for a tour around the hospital.

The Department of Orthopaedics was located at 7<sup>th</sup> floor whereas the Professor's room was placed at 8<sup>th</sup> floor. The department has the extension to the Orthopaedic Ward. There were 15 beds available for spine patients. The nurses and supporting staff were very warmhearted and cheerful when I met them. I had opportunity to follow ward round before I went to operative theatre.



Figure 1 View at main entrance to Orthopaedic Department building



Figure 2 View from the conference room

# 3. Case presentation/Spine Meeting

Every morning at 8.00 am, there will be a case presentation by on-duty registrar at the conference room. The cases were mainly from patients who were admitted from the previous day admission. The meeting will be adjourned at 8.20 and we will proceed with spine meeting after. During the meeting, Dr Ebbe will delegate all the tasks for the day to respective surgeons. There will be discussion on complicated cases that need multiple input from each surgeon. The meeting will be finished before 9.00 am and everybody will be assigned to the task given to them. I also have opportunity to present my work and research during the meeting.



Figure 3 My presentation during spine meeting



Figure 4 Radiology conference every Tuesday

### 4. Operation

The operation theatre was running every day for spine cases. They will occupy theatre room number 325 and 326. Here, I had chance to be first assistant with various surgeons; Prof Cody, Dr Ebbe, Dr Li, Dr Kristian, Dr Thomas, Dr Kestusis and Dr Anne. They are very experienced and knowledgeable since they have managed many series of cases. During my stay, I had assisted 21 cases which include neuromuscular scoliosis, adjacent segment disease, spondylodiscitis, burst fracture and spine tumour. I also learned on various tips and tricks on operative techniques in spine surgery.



Figure 5 Me and Dr Kestusis during fixation of T12 burst fracture using N-Force system

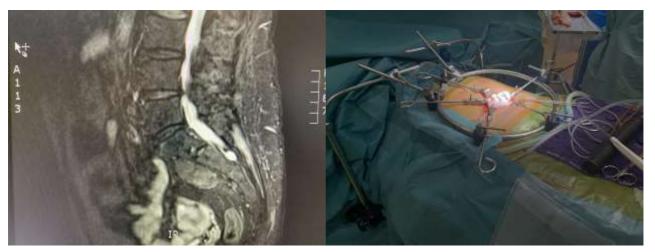


Figure 6 Sacral tumour resection via retroperitoneal approach



Figure 7 Me and Dr Kristian

#### 5. Accommodation

I stayed at AtHome apartment which was located nearby the hospital. Every day, I cycled to the hospital which will took around 5 minutes. Thanks to Dr Ebbe who is willing to offer his bicycle for me. I also had a chance to cycle around the city area, which was very exciting experience which I wouldn't forget. The transportation to the central city is very efficient. There will be a tram ready for each 15 minutes to go the city. I bought the one-month pass via online to travel via tram.



Figure 8 Bicycle ride to the hospital



Figure 9 Picture at Moesgaard Museum and Little Mermaid

#### 6. Conclusion

I would like to express my gratitude to Jenny Wong and Maxime Lemaire from APSS, Katia and Prof James Waddell from SICOT for giving me this precious opportunity. A lot of thanks to Prof Cody Bünger and associates for effortlessly guided and trained me the techniques and arts in spine surgery. Thanks to Dr Kestusis for arranging my place and accommodation during my fellowship. Lastly, my gratitude to Prof Amran Ahmed Shokri, Prof Mohd Imran Yusof and Dr Joehaimey Johari for allowing me to go for this training.



Figure 10 (from left) Dr Bjorn, Dr Rohan, Me, Dr Ebbe, Prof Cody, Dr Thomas, Dr Li, Dr Kestusis



Figure 11 Photos with Prof Cody, Dr Li, Dr Kestusis and Dr Ebbe

Monday	Tuesday	Wednesday	Thursday	Friday
8.00-8.15 (Plan 8) Morning conference: Department of Orthopodic Surgery	8.00-8.15 (Plan 8) Morning conference: Department of Orthopedic Surgery	8.00-8.15 (Plan 8) Morning conference: Department of Orthopedic Surgery	8.00-8.15 (Plan 8)  Morning conference: Department of Orthopedic Surgery	8.00-8.15 (Plan 8) Morning conference: Department of Orthopedic Surgery
8.15-9.00 (Plan 7) Meeting of the Spine Surgery Unit: Review of the admitted spine surgery patients	8.20-9.00 (Plan 7) Morning meeting of the Spine Surgeons	8.15-9.00 (Plan 6) Education conference for young Orthopedic surgeons	8.20-9.00 (Plan 7) Morning meeting of the Spine Surgeons	8.20-9.00 (Plan 7) Morning meeting of the Spine Surgeons
		9.15-10.00 (Plan 7) Meeting of the Spine Surgery Unit: Review of the admitted spine surgery patients	9.00-9.15 (Plan 7) Microbiology conference	
		10.30-11.00 (Plan 1) Sarcoma conference		
		13.00-14.00 (Plan 1) Neuroradiology conference		
		14.00-15.00 (Plan 1) Radiology conference		
9.00-15.30 (Plan 2) Outpatient clinics	8.30-15.30 (Plan 2) Outpatient clinics	10.00-12.30 (Plan 2) Outpatient clinics	9.00-15.30 (Plan 2) Outpatient clinics	9.00-15.00 (Plan 2) Outpatient clinics
8.00-18.00 (Plan 3) 8.00-18.00 (Plan 3) Spine Surgeries (OR Nr. 325 and Nr. 326)	8.00-18.00 (Plan 3) 8.00-18.00 (Plan 3) Spine Surgeries (OR Nr. 325 and Nr. 326)	9.00-13.00 (Plan 3) 9.00-13.00 (Plan 3) Spine Surgeries (OR Nr. 325 and Nr. 326)	8.00-15.00 (Plan 3) 8.00-18.00 (Plan 3) Spine Surgeries (OR Nr. 325 and Nr. 326)	8.00-15.00 (Plan 3) 8.00-15.00 (Plan 3) Spine Surgeries (OR Nr. 325 and Nr. 326)

Figure 12 Timetable for the fellowship

# Surgical Log Book

No	Date	Diagnosis	Surgery	Role	Surgeon
1	16/9/19	Neuromuscular scoliosis	Corrective deformity & PSIF T4 to L3	Assistant	Dr Ebbe Dr Kestusis
2	17/9/19	Neuromuscular scoliosis	Removal of magnetic rod & PSIF T2 to L3	Assistant	Prof Cody
3	17/9/19	Degenerative lumbar stenosis	Decompressive laminectomy L1/L2	Assistant	Dr Ebbe
4	17/9/19	Pyogenic spondylodiscitis C5/C6	ACCF + allograft C3 to C7	Assistant	Dr Kestusis
5	18/9/19	Degenerative lumbar stenosis	Decompressive laminectomy L3/L4, L4/L5, L5/S1	Assistant	Dr Kestusis
6	18/9/19	Burst fracture T12	PSIF T10 to L2 (N- Force Medtronic)	Assistant	Dr Kestusis
7	19/9/19	Degenerative kyphosis with sagittal imbalance	PSO L2 & extension of fusion to T4 & iliac	Assistant	Prof Cody Dr Li
8	20/9/19	Neuromuscular scoliosis	Magnetic rod lengthening	Assistant	Dr Li
9	20/9/19	Degenerative lumbar stenosis	Decompressive laminectomy L3/L4, L4/L5	Assistant	Dr Li
10	23/9/19	Pyogenic spondylodiscitis L4/L5	Discectomy + allograft & PSIF L4 & L5	Assistant	Dr Kristian
11	23/9/19	Adjacent segment disease L2/L3 with previous PSIF L3 to S1	Extension of PSIF to L2	Assistant	Dr Li
12	24/9/19	Benign tumour of S2	Excisional biopsy via retro peritoneal approach	Assistant	Prof Cody
13	24/9/19	Neuromuscular scoliosis	Removal of magnetic rods & PSIF T2 to L3	Assistant	Dr Li
14	25/9/19	Degenerative lumbar stenosis with spondylolisthesis L4/L5	Decompressive laminectomy & PSIF L4 & L5	Assistant	Dr Kestusis
15	26/9/19	Non union fracture of odontoid C2	PSIF occiput to C4	Assistant	Dr Kristian Dr Thomas
16	26/9/19	Implant failure of neuromuscular kyphoscoliosis with previous PSIF T2 to L1	Removal of implant	Surgeon	Dr Kristian

17	27/9/19	Degenerative lumbar stenosis	Decompressive laminectomy L4/L5	Assistant	Dr Ebbe
18	27/9/19	Penetrating injury of left thorax with multiple ribs, clavicle and scapula fractures	Excision of left 1 <sup>st</sup> & 2 <sup>nd</sup> posterior ribs	Assistant	Dr Ebbe
19	1/10/19	Adjacent segment disease with previous PSIF L1 to S1	Extension of PSIF T9 to T12	Assistant	Prof Cody Dr Li
20	3/10/19	Degenerative lumbar stenosis L4/L5 & L5/S1	Revision of S1 pedicle screws & laminectomy L5/S1	Assistant	Dr Kestusis
21	4/10/19	Degenerative lumbar stenosis L3/L4 & L4/L5 with spondylolisthesis L4/L5	Decompressive laminectomy & PSIF L3 to L5	Surgeon	Dr Kristian

Prepared by

(DR AZIZUL AKRAM BIN SALIM)