

Fellow- Dr. Sanjay Yadav

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Destination 1- The University of Hong Kong, Department of Orthopedics

Guide- Prof. Keith D.K. Luk

Affiliated hospitals

1. The Duchess of Kent Children Hospital, Sandy Bay, Hong Kong
2. Queen Mary Hospital, Pokfulam Road, Hong Kong

Duration- 10th Nov. 2013 to 17th Nov. 2013

I was pleased to be a part of the prestigious APOA-APSS Spine Travelling Fellowship-2013 and I thank the APOA-APSS for considering and giving the opportunity for academic exchange. I just had enough time from a spine conference we organized at my institute (WENMISS-2013) to prepare for the travelling fellowship. I got on to flight from New Delhi to Hong Kong just at the nick of time. I landed in Hong Kong on time and reached our destination. Hong Kong was indeed a city of sky scrapers where everything seemed to be in order. I walked around the hotel to know the place, had my dinner and was up and about for the next day.

Day 1	Schedule	Consultant	Learning process / Remark
0830-0900	Exchanged	Prof. Keith	--

	greetings	Luk	
0900- 1300	Scoliosis clinic	Prof. Keith Luk	-Discussed about 12 cases -Learnt the referral system -School Screening System -Electronic data recording system -"Capping sign" in maturity assessment
1300-1400	Lunch		
1500 hrs	Nerve root block	Prof Wong Yat Wa	-Discography -Nerve root block technique
1800 hrs	Dinner	Prof. Keith Luk	-The Deck, Marina Club, Aberdeen, Hong Kong
End of day			
Day 2			
0830-0930	OT	Prof. Keith Luk Dr. W.Y Cheung	-Anterior cervical discectomy and fusion with stand alone cage
1000-1200	Early Onset Scoliosis course	Prof. Keith Luk Prof. Kenneth Cheung	-Philosophy of fulcrum bending film in scoliosis -Derivation of the Flexibility index Fulcrum bending correction index -Decision making on fusion levels by fulcrum bending film
1200-1400	Lunch	Prof. Kenneth Cheung	-Dynastie Restaurant, Cyberport
1400-1700	OT	Prof. Luk	-C5/C6 and C6/C7 disc protrusion- C6 Corpectomy, titanium cage and bone grafting, anterior cervical plating
1700-1730	Post case discussion	Prof Luk	Operated case discussion post op.

End of the day			
Day 3			
0830-1100	Ward rounds	Prof Luk Prof Wong	-Saw cases of congenital scoliosis, post-op X-rays of patients operated the day before.
1100-1200	Paediatric case conference	Prof Kenneth Cheung	-Discussed neuromuscular scoliosis -Discussed spine and cerebral palsy
1200-1300	Lunch		Le Meridien, Cyberport
1400-1800	Adult spine clinic	Prof Wong	Saw pre-op and post-op follow up cases- canal stenosis, listhesis, cervical spine cases
End of the day			
Day 4			
0830-1230	Syndromic scoliosis (Soto syndrome)	Prof Kenneth Cheung	Magnetic growing rods application (MAGEC)
1230-1300	Lunch		Arranged by OT sister in-charge
1300-1600	Growth rod revision	Prof Kenneth Cheung	Intra-op found to be infected- plan modified to implant removal and wound lavage
1900-2100	Dinner	Prof Kenneth Cheung	-The Bijas, University of Hong Kong campus. -Learned a brief history of The Hong Kong University
End of the day			
Day 5			

0830-1130	Ward rounds	Prof Kenneth Cheung Prof. Wong Yat Wa	-Discussed cases in wards -Saw high dependency unit -Various cases like Gorhams disease, cervical myelopathy, central cord syndrome
1130-1230	Lunch		
1230-1400	Case presentations	Prof Kenneth Cheung Prof. Wong Yat Wa	-Presented "thoracolumbar trauma- role of -Minimal invasive approach and anterior column support". -Case discussion-telemedicine with Shenzhen Hospital, Mainland China
1400-1600	Research lab rounds	Dr. Kenny Kwan Dr. Lee	-Saw the research facilities -Had brief idea about ongoing research work like: -Shape memory alloy in scoliosis -Strontium impregnated bone cement in osteoporotic fractures -Role of genetics in disc degeneration -Various other molecular research work
End of the day			
Day 6- Saturday	Free day		-We prepared for our next destination
Day 7- Sunday	Flight to Taipei, Taiwan		-Reached Taipei at 1200 hrs

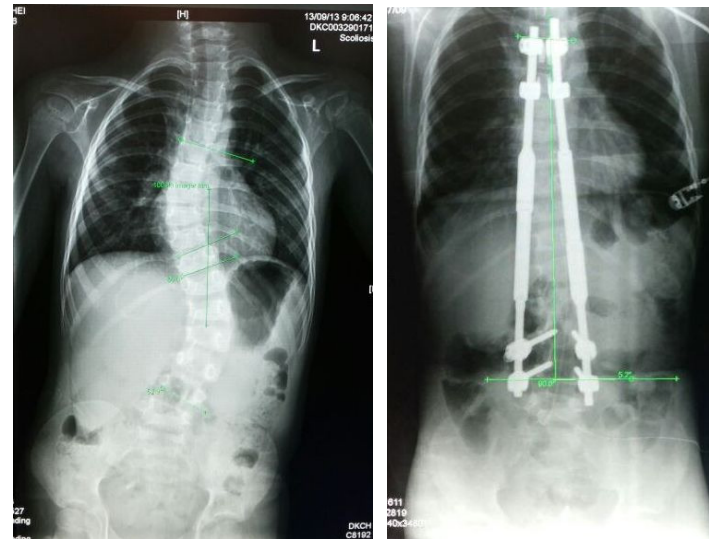
I once again thank Prof. Keith D.K. Luk and Prof. Kenneth M.C. Cheung for sharing their experience and being source of inspiration and inculcating their work culture.



APSS fellows 2013- Group-B. From left- Dr. Masatoshi Teraguchi (Japan), Dr. Sanjay Yadav (India) and Dr. Suen Tsz King (Hong Kong)



Fellow dinner hosted by Prof. Keith D.K. Luk



MAGEC magnetic growing rod instrumentation



Presentation On “Role of MIS in thoracolumbar trauma and anterior column support” at Queen Mary Hospital, Hong Kong

Destination 2- The Chang Gung Medical University, **Taiwan**

Guide- Prof. Chen Wen-Jer

Affiliated hospital- Chang Gung Memorial Hospital (CGMH), Linkou, Taiwan

Duration- 18th Nov. 2013 to 24th Nov. 2013



Chang Gung Medical Center, Taipei

We got on to our next flight from Hong Kong to Taipei. As I was with my co-fellows this time, the travel was smooth. Compared to Hong Kong, Taipei was spread out with little sky scrapers and more open space. We reached our hotel well on time. We walked around in the evening to get acquainted with the surroundings. The hospital was at a walkable distance from the hotel. We had local Taiwanese style dinner, got back to our room and were ready for the next day.

Day 1			
0730-0800	Chang Gung Memorial Hospital (CGMH)	Prof Chen Wen-Jer	-Exchanged greetings -Had a briefing about the department and its functioning
0800-1300	OT	Prof Chen WJ	-Lumbar Spondylolisthesis- one level -Degenerative spondyloarthropathy- lumbar spine
1300-1400	Lunch		
1400-1700	OT	Prof Chen WJ	-Lumbar spondylolisthesis and retrolisthesis -Degenerative disc disease -Adjacent segment degeneration
End of the day			
Day 2			
0700-0800	Morning meeting	Prof Chen WJ	-Lectures -Case discussions
0800- 1300	OT	Prof Chen WJ Dr Li	-ACDF- one level- stand alone PEEK cage -ACDF- two level- stand alone PEEK cage
1300-1400	Lunch		
1400-1700	OT	Prof Chen	-Degenerative disc

		WJ	disease with canal stenosis L3-L4-L5: DTO (Dynes Transition Optima)
1800-2000	Dinner	Spine Team, CGMH	-Hosted by Spine Team, CGMH (Traditional Taiwanese cuisine)
End of the day			
Day 3			
0800-1330	OT	Prof Chen WJ	-Lumbar scoliosis-posterior instrumentation -Cervical disc- C6/C7-ACDF- PEEK cage
1330-1400	Lunch		
1400-1800	OT	Prof Chen WJ	-L4 nerve root block -Degenerative lumbar disease with lumbar kyphosis-decompression, 2 level Ponte osteotomy and posterior instrumentation
End of the day			
Dinner			-Hosted by Spine Team, CGMH, Taiwan
Day 4			
0700-0800	Spine meet	Prof Chen WJ Prof Chen Prof C.C. Niu	-Audit of last week cases including cases with infection and hospital overstay -Discussed interesting cases operated -Discussed non-fusion spine technologies like DTO (Dynes Transition Optima) -Discussed cases posing

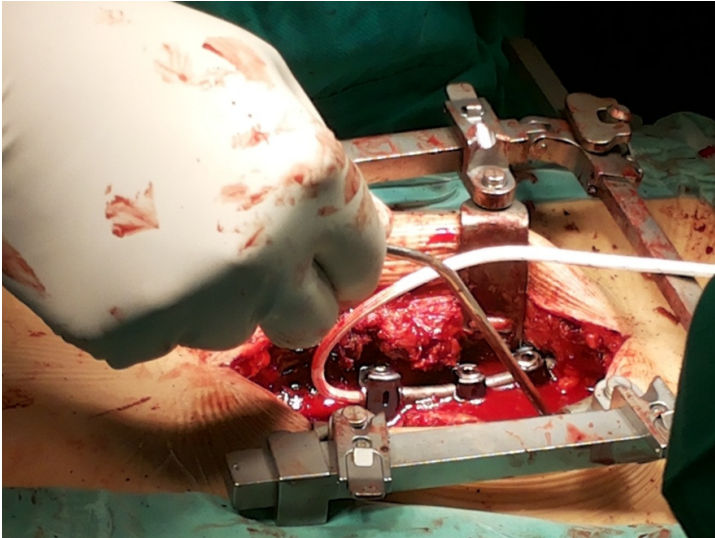
			diagnostic challenge
0800-1300	OT		-ACDF with PEEK cages- three level L2-S1 decompression and fusion for degenerative spondyloarthropathy -Spinal osteotomy with posterior instrumentation for lumbar kyphosis-three level Ponte osteotomy -L3-L4 nerve root block injection
1300-1400	Lunch		-Hospital canteen
1400-1730	OT	Prof. Chen WJ	-Lumbar canal stenosis-decompression, posterior instrumentation and fusion with PEEK cage
End of the day			
Day 5			
0800-1300	OT	Prof. Chen WJ	-Degenerative spondyloarthropathy -Spondylolisthesis-lumbar -Lumbar dissectomy
1300-1400	Lunch		
1400-1800	OT	Prof. Chen WJ	-Kyphoplasty- D12 -Kyphoplasty- L2,L3 -Lumbar canal stenosis-posterior decompression and instrumentation--L2-L5
End of the day			
Day 6			
0700-0800	Morning	Dr Chang	-Neuromuscular

	meeting		scoliosis- seminar and discussion
0900-1100	OT	Prof Chen WJ	-Discectomy and decompression for Prolapsed Intervertebral Disc
End of the day			-Packed my luggage for next flight
Day 7	Flight to India		-Mumbai, our next destination. Reached Mumbai at 1700 hrs -Fellow dinner hosted by Prof. Shekhar Y. Bhojraj (California Pizza Kitchen)



Kyphoplasty in an osteoporotic collapse- with Dr. Liah at CGMH, Taipei

I thank Prof Chen Wen-Jer and his team for their excellent hospitality, experience and taking good care of all of us.



Concept of dynamic fixation- DTO (Dynesys Transition Optima)



Morning Spine Meet at CGMH, Taipei



Fellow Dinner hosted by Prof. Chen Wen-Jer

Destination 3- Lilawati Hospital and Research Center, Mumbai, India

Guide- Prof. Shekhar Y. Bhojraj

Affiliated hospital (s)

1. Lilawati Hospital, Mumbai, India
2. Breach Candy Hospital, Mumbai, India
3. V.N. Desai Municipal Hospital, Mumbai, India
4. P.D. Hinduja Hospital, Mumbai, India

Duration- 24th Nov. 2013 to 30th Nov. 2013

Day 1	Schedule	Consultant	Learning process / Remark
0730-0800	Exchanged greetings	Prof SY Bhojraj	Learnt about our schedule and department activity
0800-1300	Ward rounds	Prof SY Bhojraj	Saw the cases in ward Discussed pre-operative cases for next day OT
1300-1400	Lunch		
1500-1800	OT	Prof SY Bhojraj	At Breach Candy Hospital Lumbar decompression and

			medial partial facetectomy
1900-2100	Dinner	Prof SY Bhojraj	The Princess club restaurant
End of the day			
Day 2			
0800-1400	OT	Prof SY Bhojraj	Case 1. Lumbar decompression and instrumentation L4/L5 for degenerative disc disease Case 2. Degenerative lumbar spondyloarthropathy- Posterior instrumentation and decompression Case 3. Multisegmental thoracolumbar degenerative disease- Posterior Decompression <i>without</i> fixation
1400-1500	Lunch		
1500-1600	OPD	Prof SY Bhojraj	Saw cases in OPD and examination methods
1600-1800	Presentations	Prof SY Bhojraj	Interacted with Prof. S.Y. Bhojraj and discussed- 1. Tuberculosis spine and management approach 2. Role of low cost implants in spinal disorders 3. Experience with sub-laminar wiring 4. Classification for cervical spine tuberculosis
1800-1900	APOA discussion session	Prof. S.Y. Bhojraj Dr. A. Nene Dr. S. Dalvie	Discussed various cases like spinal tumor (L3 involvement), deformities, scoliosis, degenerative disease fo spine
1900-	Dinner		Restaurant Goa Portuguesa

2100			
End of the day			
Day 3			
0800-1400	OT	Dr. S. Dalvie	-Observed a case of tuberculosis spine D8-D9 with paravertebral abscess- D7-D10. -Excellent demonstration of combined anterior and posterior approach with posterior pedicle screw fixation followed by anterior decompression and cage fixation
1400-1500	Lunch		
1600-1800	Free time		Went for short local trip
1900-2100	Dinner	Prof S.Y. Bhojraj Dr. A. Nene	-The Wellington Club, Mumbai -Excellent hospitality -Interacted with overseas surgeons from UK for Deformity course
End of the day			
Day 4			
0800-1400	Deformity course	Prof S.Y. Bhojraj	Case 1. Post-tuberculosis sequelae with D8/D9 kyphosis with myelomalacia - Was managed by posterior instrumentation and pedicle subtraction osteotomy
1400-1500	Lunch		
1500-2000	Deformity course	Prof S.Y. Bhojraj	Case 2. Adolescent idiopathic scoliosis

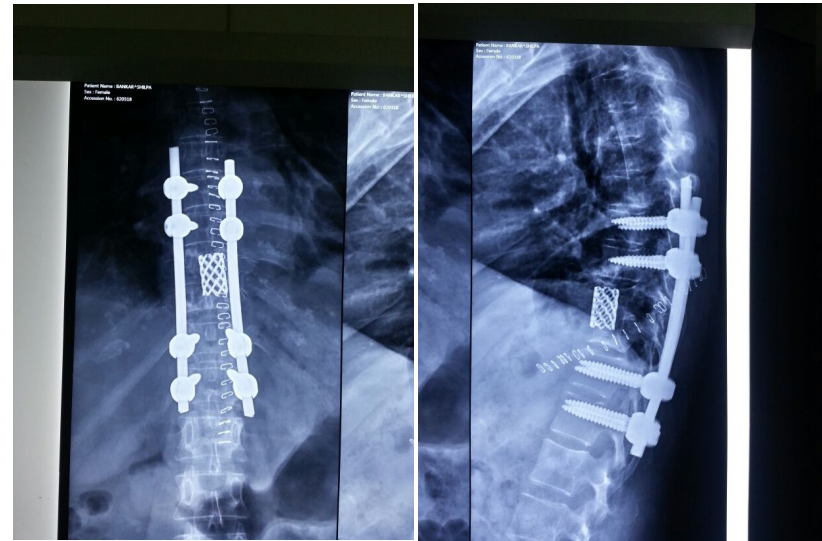
			-she had double cords, so we had discussion regarding congenital scoliosis or AIS - was managed by posterior instrumentation from D3 to L2 -discussed approach to Neuromonitoring with faculty from UK
2000-2200	Dinner		Copper Chimney
End of the day			
Day 5			
0900-1400	Deformity course	Prof S.Y. Bhojraj	-we had a case of neuromuscular scoliosis, 16 yr male for deformity correction -was managed by posterior instrumentation and multiple Ponte's osteotomy -instrumentation levels were from D3 to L5
1400-1500	Lunch		
1500-1700	Deformity course	Prof S.Y. Bhojraj	-we had lectures on neuromuscular scoliosis -and degenerative scoliosis and management
2000-2200	Dinner		Masala Zone restaurant
End of the day			
Day 6			
0800-1000	Lectures- deformity course	Prof S.Y. Bhojraj Ms Helen Grover (UK)	Had lecture on Neuromonitoring and its interpretation
End of			

the day			
1000	Flight		Flight back to New Delhi, India
Day 7			
Back to New Delhi, India			Reported back to the department of orthopedics, AIIMS on Monday morning.

I sincerely thank Prof Shekhar.Y. Bhojraj and his team for their excellent case demonstrations, clinical excellence sharing and traditional Indian hospitality. I am thankful indeed for showing us the other side of the coin and inculcating in us service for the poor and mankind.



Lilawati Hospital and Research Center, Mumbai



Spinal Tuberculosis- Posterior Instrumentation and Anterior Cage Fixation



At the "Gateway of India", Mumbai



At deformity correction workshop in Mumbai, India with Prof. S.Y. Bhojraj

Newer dimensions

This was also an excellent opportunity to bond with my co-fellows and spread the word of peace and knowledge sharing among us. We went to three different places, met different people; and relished different food and culture. We enjoyed some of the breath taking views from “The Peak” in Hong Kong to the view of “Geothermal Valley” in Beitou, Taipei.



Victoria Harour view from “The Peak”, Hong Kong



At the Geothermal Valley, Beitou, Taipei

We brushed past the second tallest tower in the world- “Taipei 101” with the fastest high speed elevator.



At Taipei-101, world’s second tallest building

We relished the delicacies at some of the famous night streets in Taipei and I tried my skills with chopsticks.



Fostering friendship. Left- with Dr. Suen Tsz King, Right- with Dr. Masatoshi Teraguchi



Showing some chopstick skills, Night Food Street, Taipei

We got souvenirs from the Taipei riverfront and Taipei wood work. In Mumbai, we enjoyed the spicy India. We departed wishing good luck to each other and with a promise to stay in touch.

Finally, I express my deepest regards for the organization: APOA- APSS for the opportunity which will benefit me in my future endeavors. I look

forward to life long association with the organization to keep myself updated with the state of the art in spine surgery.

Sanjay Yadav

New Delhi

December, 2013

Log book APOA-APSS - Depuy Synthes Spine Travelling Fellowship 2013

Case No.	Age (Y)	Sex	Diagnosis	Surgery	Remarks
1	42	F	L5 radiculopathy right	Nerve root block	-
2	10	M	Congenital dorsolumbar scoliosis	Magnetic Growing rod application (MAGEC)	Soto syndrome
3	9	F	Early onset dorsal scoliosis with growth rod in-situ	Revision growth rod application	Found infected. Implant removal and wound lavage
4	45	F	Cervical disc disease; C5-C6	ACDF	Stand-alone iliac crest graft (Kokobun technique)
5	52	M	Cervical disc disease; C5-C6, C6-C7	C5 corpectomy and anterior cervical plating	Meshed titanium cage with bone graft
6	48	M	Lumbar Spondylolisthesis- one level	L5-S1 posterior instrumentation	TLIF with PEEK cage
7	54	F	Degenerative spondyloarthropathy- lumbar spine	L3-L4, L4-L5 posterior instrumentation and fusion	PEEK cage
8	57	M	Lumbar spondylolisthesis- L4-L5, L5-S1	Two level fixation with posterior instrumentation	TLIF with PEEK cage
9	46	M	Degenerative disc disease	Open discectomy	Lumbar spine, L4-L5
10	49	F	Adjacent segment degeneration with L4-L5 fixation implant in situ	Extention of instrumentation to L3 and L2 with DTO (Zimmer)	Dynamic fixation concept
11	38	M	Cervical degenerative disease C5-C6	ACDF- one level	Stand alone PEEK cage
12	53	F	Cervical degenerative disease C4-C5, C5-C6	ACDF- two level	Stand alone PEEK cage
13	50	M	Degenerative disc disease with canal stenosis, L3-L4-L5	Posterior decompression and instrumentation	DTO (Dynesys Transition Optima)
14	67	F	Lumbar degenerative scoliosis	Posterior instrumentation, L2-L5	PEEK cage
15	69	F	Cervical spondylosis with compression, C6-C7	C6/C7- ACDF	PEEK cage
16	43	M	Left L4 radiculopathy	L4 nerve root block	-
17	69	F	Degenerative lumbar disease with lumbar kyphosis	Decompression and posterior instrumentation	2 level Ponte osteotomy
18	51	M	Cervical degenerative disease	ACDF with	PEEK cages- three level
19	49	M	L3-L4 radiculopathy	L3-L4 nerve root block	-

Case No.	Age (Y)	Sex	Diagnosis	Surgery	Remarks
20	72	F	Lumbar canal stenosis	Decompression, posterior instrumentation and fusion	PEEK cage
21	68	F	Degenerative spondyloarthropathy, L2-S1	L2-S1 decompression and fusion	PEEK cage
22	57	M	Lumbar degenerative kyphosis	Spinal osteotomy with posterior instrumentation	Multiple level Ponte osteotomy
23	63	F	Degenerative spondyloarthropathy	Posterior instrumentation and fusion	PEEK cage
	36		Disc prolapsed, lumbar	Lumbar discectomy	Open method
24	56	F	Spondylolisthesis- lumbar	Posterior instrumentation, reduction and fusion, L5-S1	PEEK cage
25	72	F	Vertebral collapse, D12	Kyphoplasty- D12	Balloon kyphoplasty
26	74	F	Vertebral collapse, L2-L3	Kyphoplasty- L2,L3	Balloon kyphoplasty
27	69	M	Lumbar canal stenosis	Posterior decompression and instrumentation--L2-L5	PEEK cage
28	32	M	Prolapsed Intervertebral Disc	Discectomy	Open method
29	60	M	Lumbar degenerative spondylosis	Lumbar decompression and medial partial facetectomy	No fixation
30	58	F	Degenerative disc disease, L4/L5	Lumbar decompression and instrumentation	No fixation
31	67	M	Degenerative lumbar spondyloarthropathy, L5-S1	Posterior instrumentation and decompression	PEEK cage
32	59	F	Multisegmental thoracolumbar degenerative disease	Posterior Decompression	No fixation
33	32	F	Tuberculosis spine D8-D9 with paravertebral abscess- D7-D10.	Posterior pedicle screw fixation followed by anterior decompression and cage fixation	Combined anterior and posterior approach
34	16	M	Post-tuberculosis sequelae with D8/D9 kyphosis with myelomalacia	Posterior instrumentation and pedicle subtraction osteotomy	Neuromonitoring
35	17	F	Adolescent idiopathic scoliosis	Posterior instrumentation from D3 to L2	MRI- double cords Neuromonitoring
36	16	F	Neuromuscular scoliosis	Posterior instrumentation and multiple Ponte osteotomy	Instrumentation levels were from D3 to L5