



Asia Pacific Spine Society (APSS)
(Spine Section of APOA)

APSS Medtronic

Fellowship Report 2023



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Host - Professor Young Hoon Kim

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Professor, Department of Ortho-Spine

St. Mary's Hospital Seoul, Catholic University, Korea

Fellowship Center – St. Mary's Hospital Seoul

The Catholic University of Korea

Seoul, South Korea

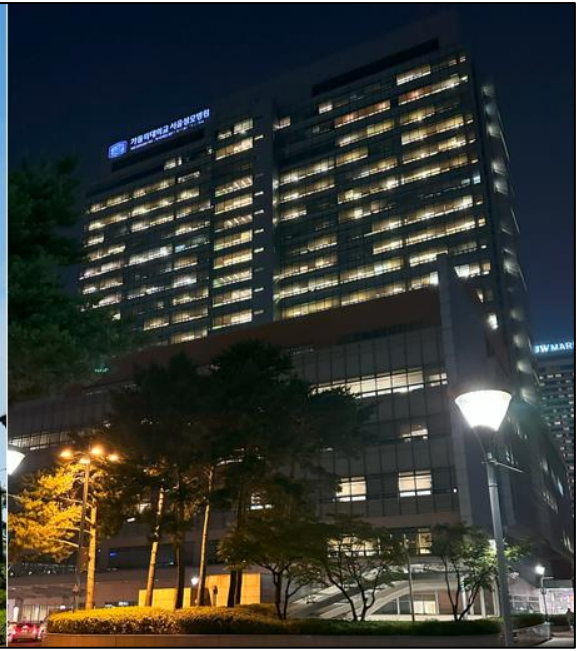
Fellowship Period – 1 July 2023 to 29 September 2023 (90 days)

Introduction

APSS (Spine Section of APOA) offers unique opportunities to Spine Surgeons every year to enrich their knowledge and surgical skills in the field of Spine Surgery by giving them fellowships at very high-volume spine centers in the Asia Pacific Region. I came to know about this fellowship from my department head and applied for APSS Spine Fellowship. The decision for allotment of fellowship is very objective and fair. I have chosen South Korea as my first preference of Host country as I was keen on learning Minimally Invasive and Endoscopic Spine Surgery. I was selected for the fellowship and was allotted the host Country according to my preference. I would like to thank Ms Jennifer Mathew, Ms Kaelyn Liew from the APSS secretariat for arranging my air tickets, place of stay and airport transfer.

My Fellowship Host center was St. Mary's Hospital, Seoul (Catholic University of Korea) and my host was Prof. Young Hoon Kim. St. Mary's Hospital Seoul is one of the biggest hospitals of South Korea with various International Awards to its name. Professor Young Hoon Kim is a well-recognized name in Seoul due to his minimally invasive work in Spine. He specializes in managing degenerative spine diseases and spine tumors. He has various publications to his name and has trained numerous international fellows.

I arrived Seoul, South Korea on 30 June 2023. My airport transfer, Registration at host center, and allotment of my place of accommodation was very smooth, thanks to Ms Kim. Prof, YH Kim met and greeted us and explained about the working of their department. There were two fellows, Young Il Ko and Myeung Sup Ko, two orthopaedic residents working with him. Also, One international fellow from Nigeria, Dr, Niabari Brownson, joined the same day for his fellowship for 6 months duration under him.



Training Schedule

There were 3 Operation theatre days (Mon, Wed, Friday), 2 days of Outpatient clinic (Tuesday and Thursday) and Academic Spine meetings on Thursday afternoon. There was Local procedures clinic (Diagnostic and Therapeutic blocks) every Monday and Thursday. Also, there was a monthly Spine meeting with Spine surgeons from Seoul at every first week of month.

	Mon	Tue	Wed	Thu	Fri
07:00		Orthopaedic Conference Zoom Online			
08.30	OT	OPD	OT	OPD	OT
12.00				Spine Conference	
13:30	Local procedures (Fluoroscopic guided Block)	OPD	OT	Local procedures (Ultrasound guided blocks)	OT

Operation theatre Equipment and Surgeries

Operation theatre was well equipped with all modern technologies for safe spine surgeries. The center had Zeiss Pentero Microscope, Medtronic O-arm Stealth Station Navigation system, Intra-operative Neuromonitoring (IONM), high quality C-arm, And Allen table with various attachments for performing surgeries in Supine, Prone and Lateral Positions.

There were average 4-6 cases on every OT day with about 50-60 cases in a month. Most of the cases were minimally invasive Fusion surgeries (MIPLIF), Lateral Interbody fusion procedures (MIS-LLIF) and Endoscopic Spine Surgery (Unilateral Biportal Surgeries). Also, Degenerative deformities requiring two stage corrections (1st stage LLIF and 2nd stage

Posterior), Anterior transthoracic and Retroperitoneal Corpectomies for neglected fractures were frequently performed. Anterior and Posterior Cervical procedures (Cervical Open door Laminoplasty) were also performed for Cervical Spondylotic cases.



Academic Spine Meetings and Research

Prof YH Kim is academically very sound and always keen on research. The department had academic spine meetings every Thursday afternoon. The fellows would present their research work progress, residents would present seminars on spine topics and discuss journal articles. I was actively involved with two research projects during my fellowship period and also delivered talks related to my research project during academic spine meetings. I compiled the data on *“Risk factors for Distal Junctional Kyphosis in surgically managed thoracolumbar osteoporotic fractures”* and also wrote a manuscript on *“Role of O-arm for guiding Spine tumour resections to achieve adequate Surgical margins”*.

Besides routine Spine meetings, I was always encouraged to participate in other national and International Conferences held in Seoul during that period. I attended three conferences during my fellowship period –

1. WUBES 2023 (The 1st World Congress of Endoscopic Unilateral Biportal Endoscopic Spine Surgery) -07 july -08 july 2023
2. ISASS-AP 2023 (International Society for Association of Spine Surgery Asia-Pacific Region) – 16 Aug – 19 Aug 2023
3. KSST Conference (Korean Spine Society for Tumours) – 09 Sep – 10 Sep 2023

WUBES 2023

The 1st World Congress of Unilateral Biportal Endoscopic Spine Surgery

Dates July 7~8, 2023

Venue Convention Hall, Omnibus Park of the Catholic University of Korea, Seoul, Korea



ISASS AP

2023

2023 Annual Meeting of the International Society for the Advancement of Spine Surgery, Asia-Pacific Section

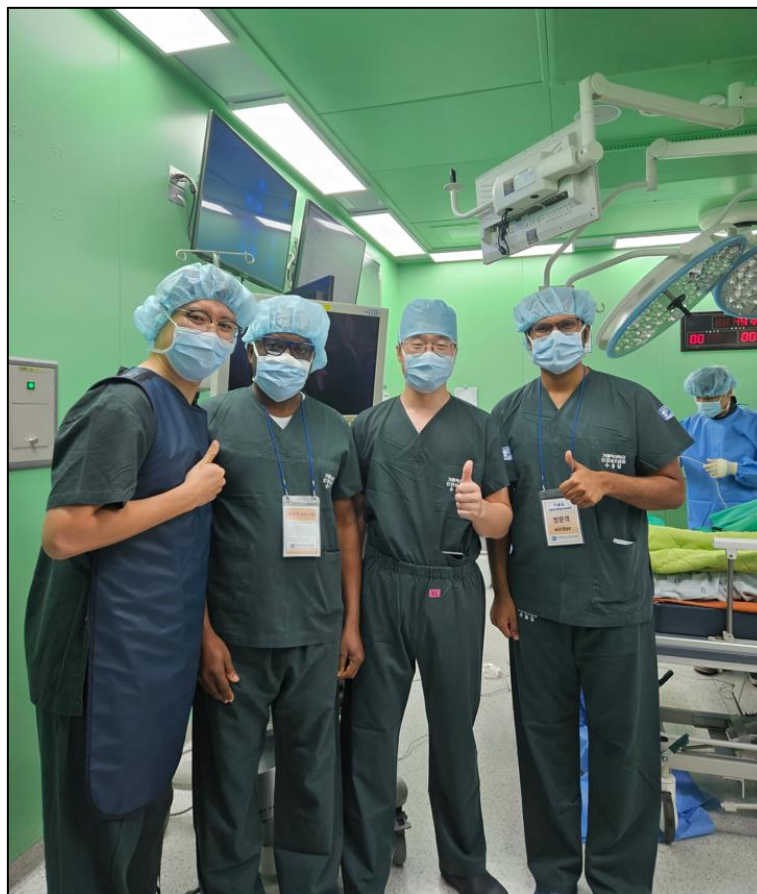
AUGUST 16(Wed) - 19(Sat), 2023
CONRAD SEOUL HOTEL, SEOUL, KOREA



Endoscopic Spine Surgery training

I was very keen on observing and learning endoscopic Spine Surgeries. Besides the endoscopic procedures that were performed at the host center, Prof YH Kim allowed us to go to other centers to learn Endoscopic cases. I and other spine fellows used to go to Seoul St. Marys Hospital Incheon to see UBE cases. *Prof. GU Kim* at Seoul St Marys Incheon showed us various UBE procedures including Ipsilateral decompression (ILA), Contralateral decompression (CLA), Transforaminal approach (TFA), UBE Fusion procedures and Posterior cervical Foraminotomy (PCF).

Also, I met *Dr., HungChul kim* at ISASS-AP 2023 who is performing UBE endoscopic spine Surgeries and also Course Coordinator of UBE Training at Daechan Hospital, Seoul. He also showed us UBE procedures at his center along with *Dr. Lee JinYoung*.



Endoscopic Spine Cases at St Mary's Hospital Incheon with Dr. GU Kim



UBE Spine training at Daechan Hospital with Dr Lee and Dr. HunChul Kim



CASES

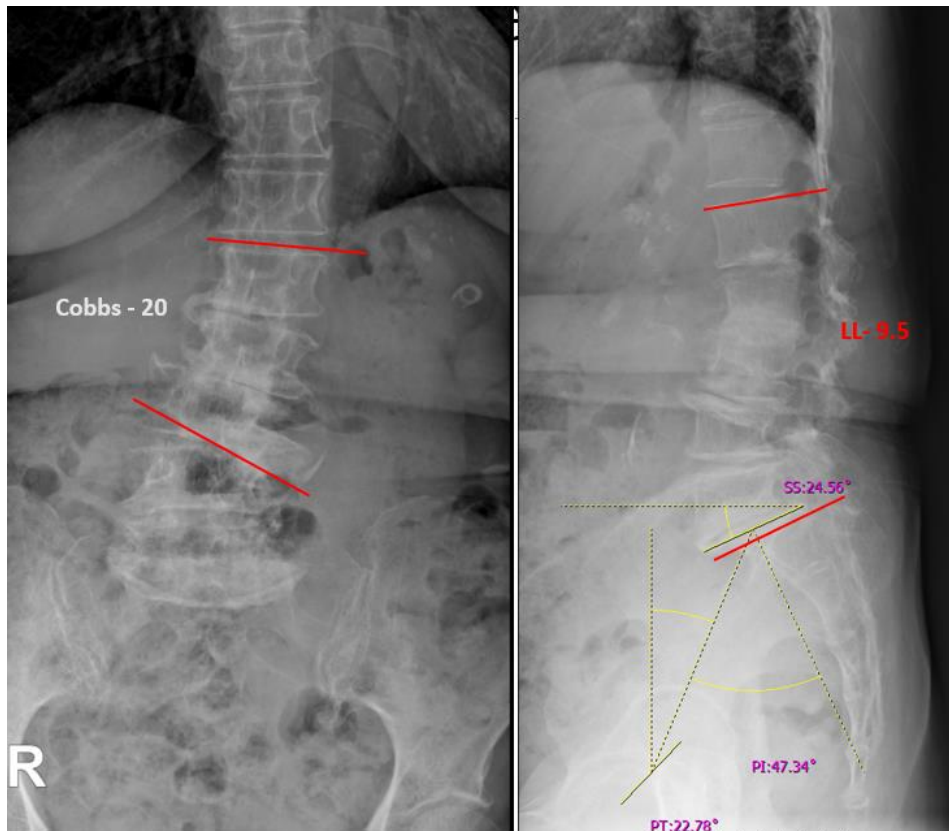
Degenerative lumbar Kyphoscoliosis

A 76 old male presented with back pain and neurogenic claudication with walking distance less than 200 meters. On Investigations, patient had degenerative lumbar kyphoscoliosis with multilevel lumbar canal stenosis. Patient underwent Two stage deformity Correction . Lateral Lumbar Interbody Fusion (LLIF) L2-L3/L3-L4 was performed in 1st stage. Posterior INstrumented stabilization L1-S1 with PLIF L4-L5/L5-S1 was done in 2nd stage Surgery.

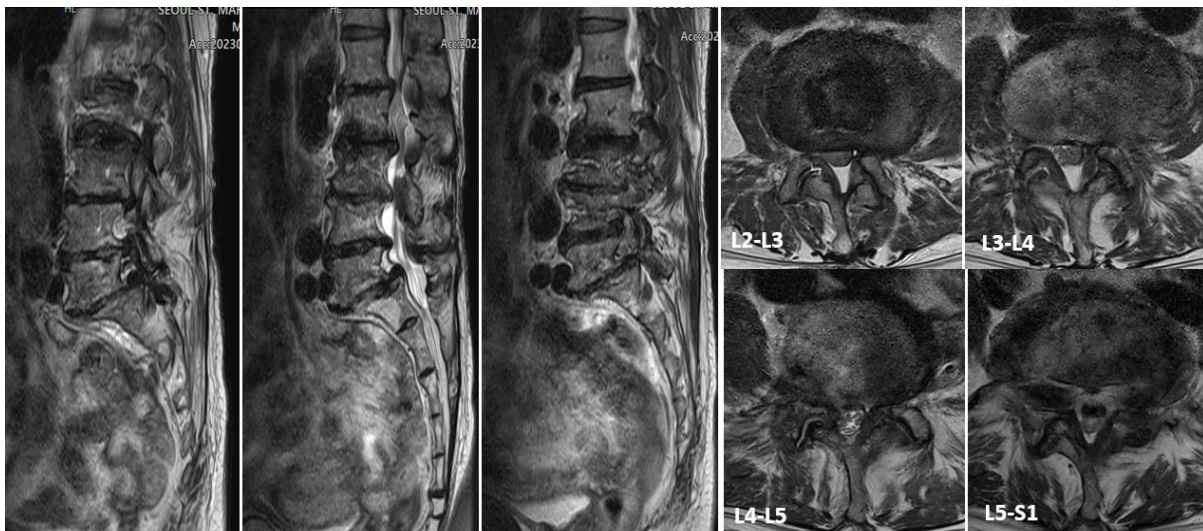
Full length AP and Lateral Spine radiographs



X-Ray Lumbar Spine AP and Lateral Views



Pre-operative MRI Lumbar Spine showing multilevel Lumbar Canal stenosis



1st stage – LLIF L2-L3/L3-L4

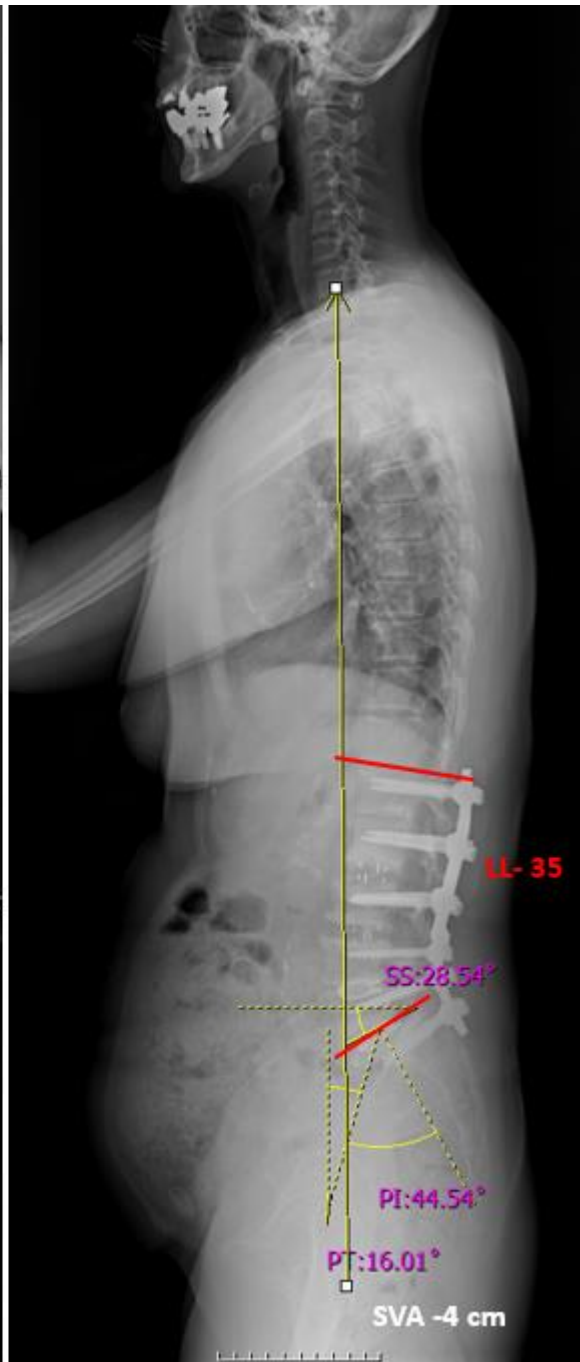
Intra-operative Image



1st stage Post-op X ray and MRI



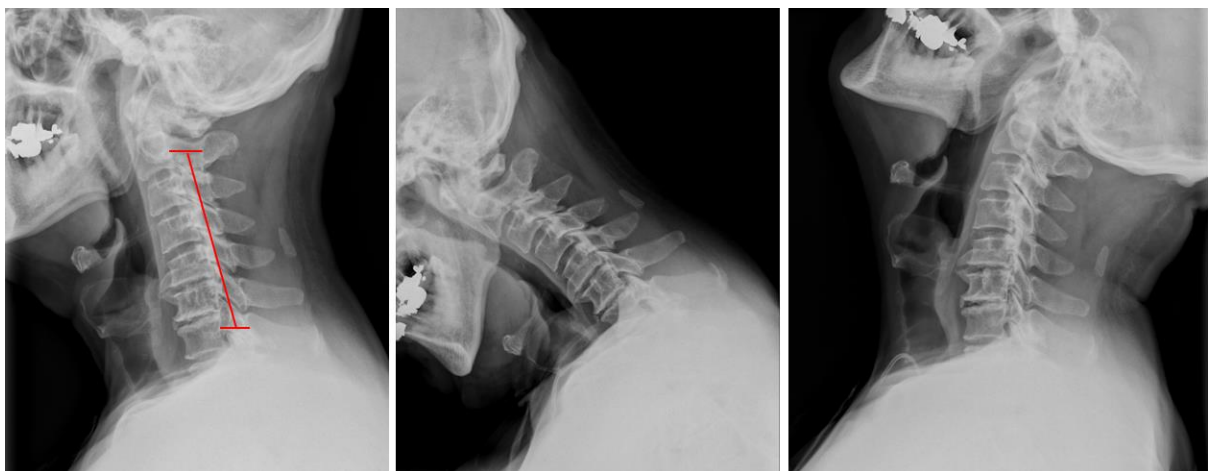
2nd stage -L1-S1 Posterior Instrumentation and PLIF L4-L5/L5-S1



Cervical Spondylotic Myelopathy

A 83 Year old male presented with gait instability for 3 months and weakness and paraesthesia in Right C5 distribution. On examination, patient had positive myelopathic signs and was Nurick grade 4. On investigations, patient had C3-C6 OPLL (Continuous type) with cervical cord compression. Patient was operated with C3 Laminectomy and C4-C6 open door Laminoplasty procedure. Post-operatively, patient showed improvement in gait and paraesthesia in upper limb.

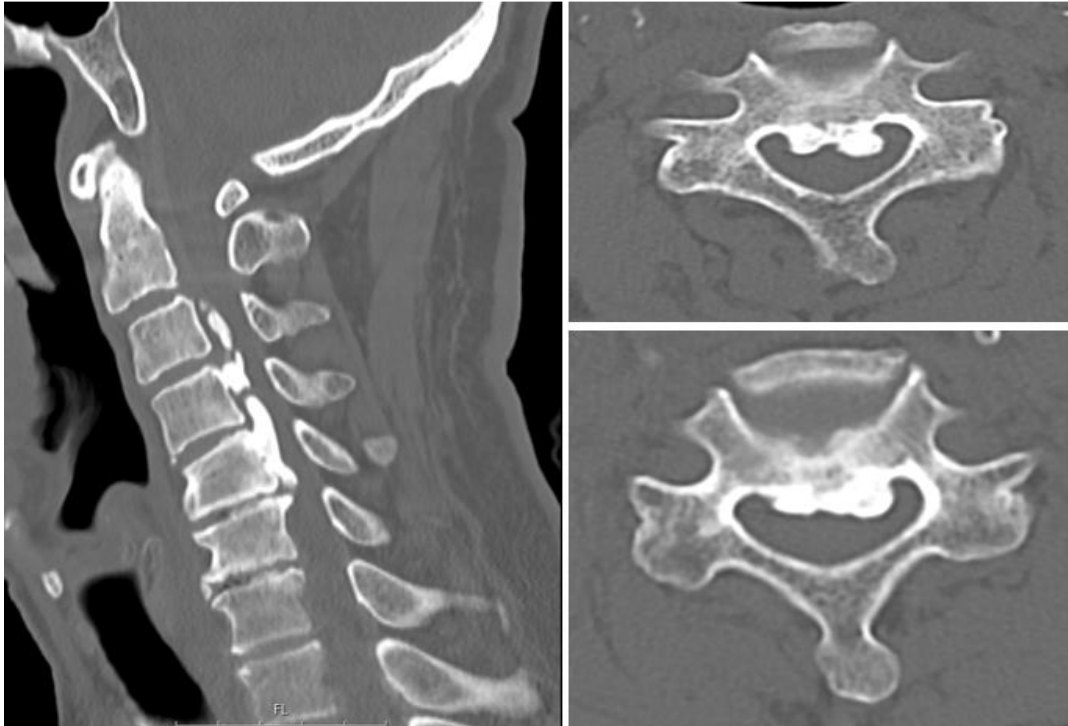
Pre-operative Cervical Spine Lateral and Dynamic Flexion and Extension Radiographs



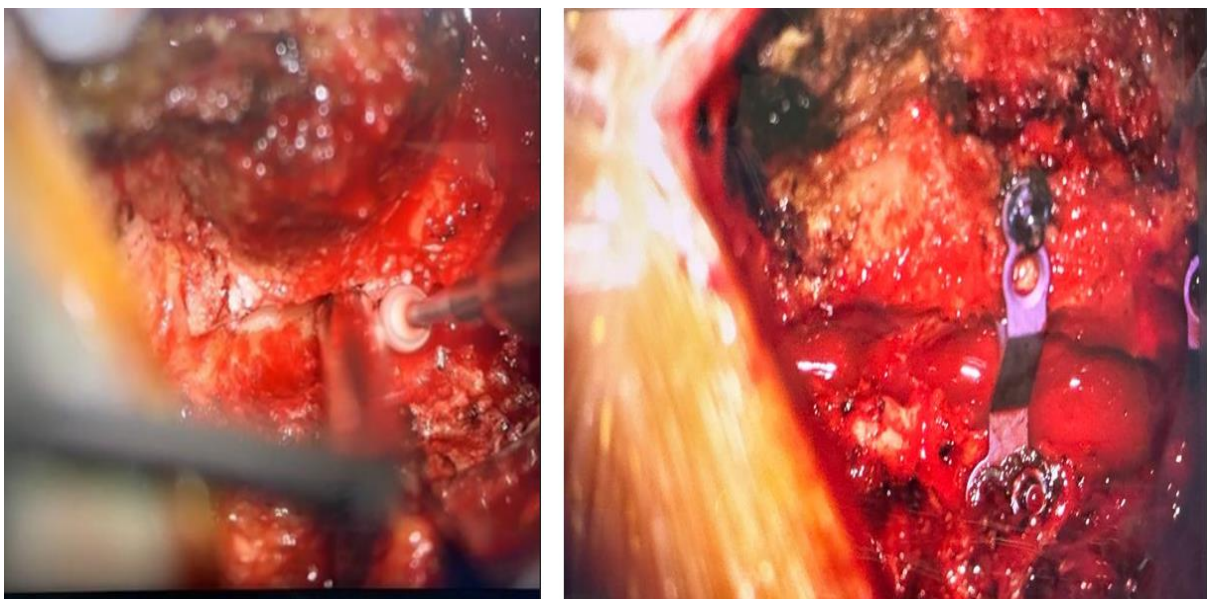
Pre-operative MRI



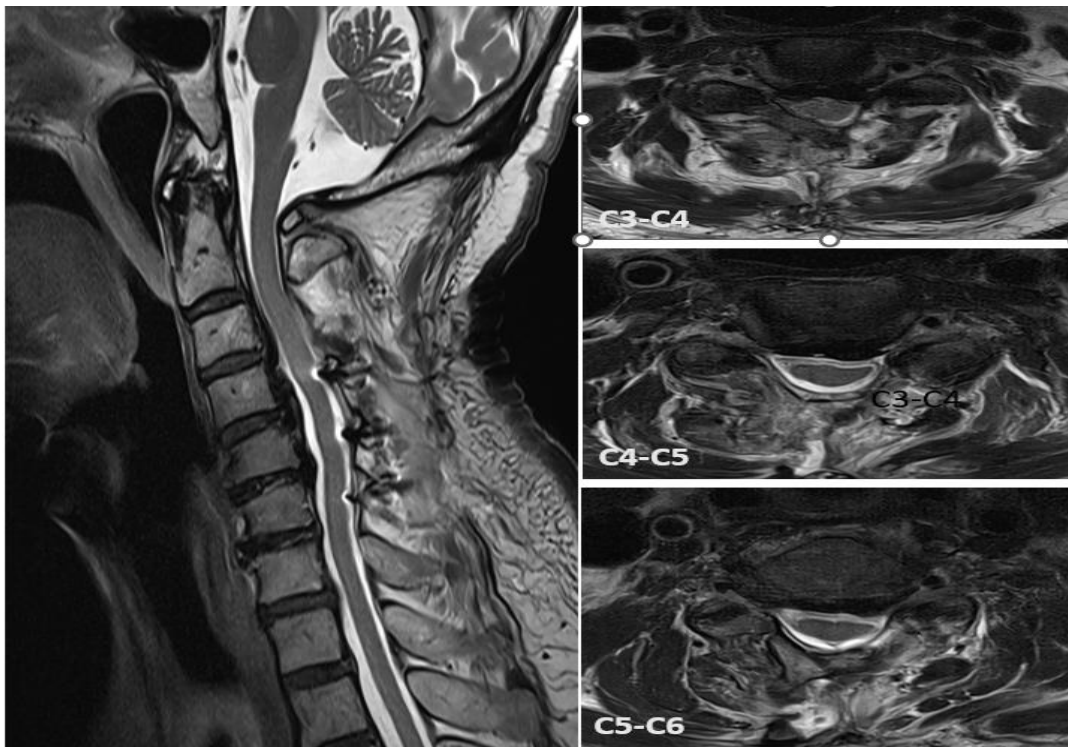
Pre-operative CT Cervical Spine showing Continuous type OPLL



Intra-operative image

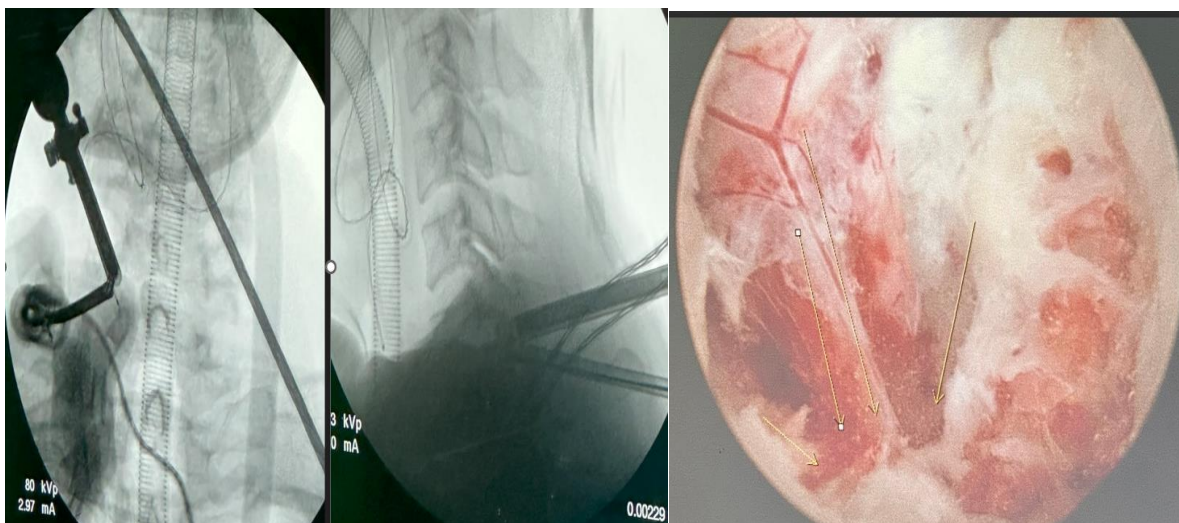
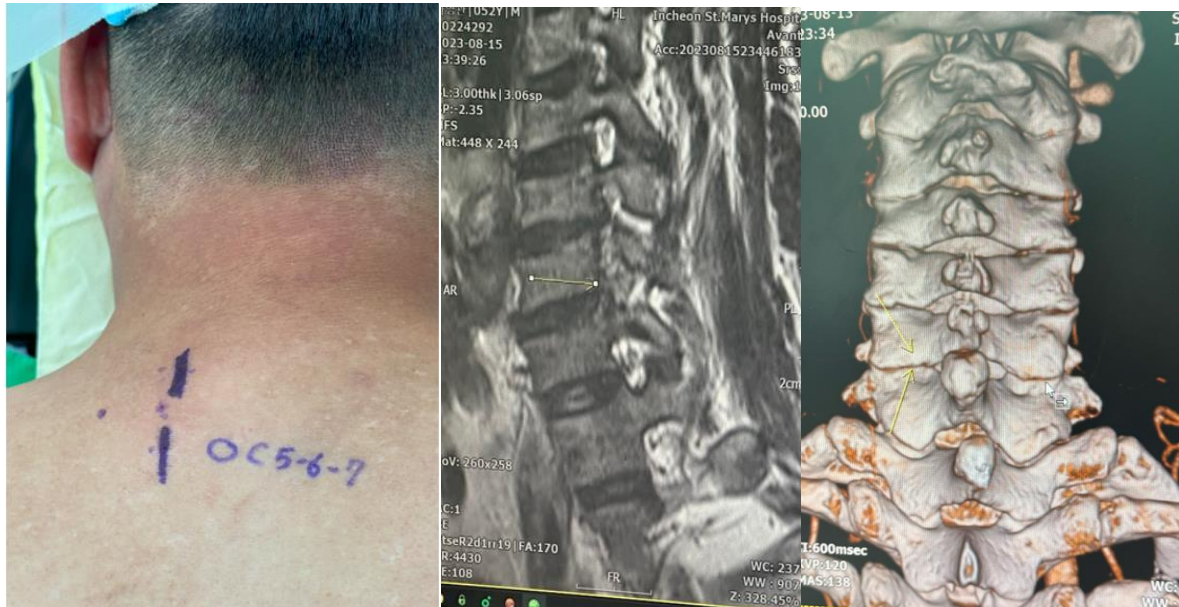


Post-operative MRI cervical spine showing increase in cervical canal antero-posterior diameter with flow of CSF.

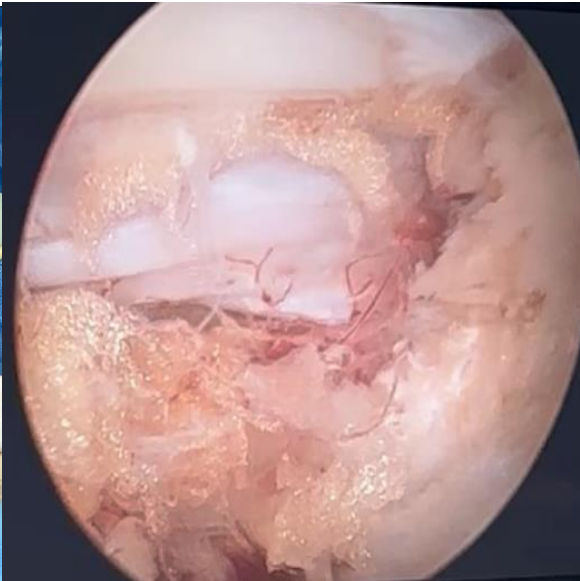
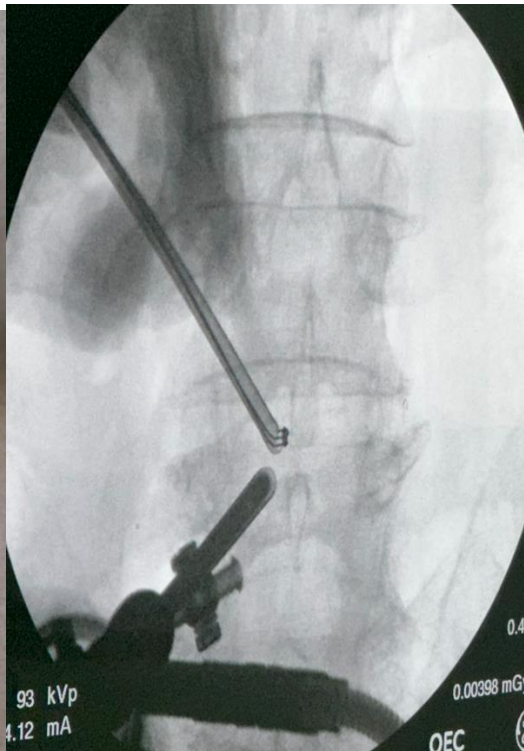


Endoscopic UBE Posterior Cervical Foraminotomy and Discectomy

A 56 Year old Male presented with C6-C7 Left foraminal disc with radiating pain in Left Upper Limb. Endoscopic Posterior Cervical foraminotomy was performed and disc fragment was removed.



Endoscopic UBE Interlaminar Lumbar decompression



Fellowship Experience

It was a great learning experience during my stay in South Korea. I was amazed by the Korean culture, their friendly nature and helping attitude towards the visitors to their country. My Co-fellows, *Young Il Kim*, *Mseung Sup Kim* and *Dr, Niabari Brownson* made my stay very comfortable. *Prof. Young Hoon Kim*, who is an excellent surgeon, is also a very kind hearted and lovely human being who made me utilize this time to learn as much as possible. I am deeply inspired by him and would like to express my deepest gratitude for his kind hospitality. I would also like to thank *Prof. GU kim* from St Mary's Hsopital Incheon and *Dr. Hunchul Kim* who taught me UBE surgery during this fellowship period.



With Prof. Young Hoon Kim and Spine team at St Mays Hospital Seoul

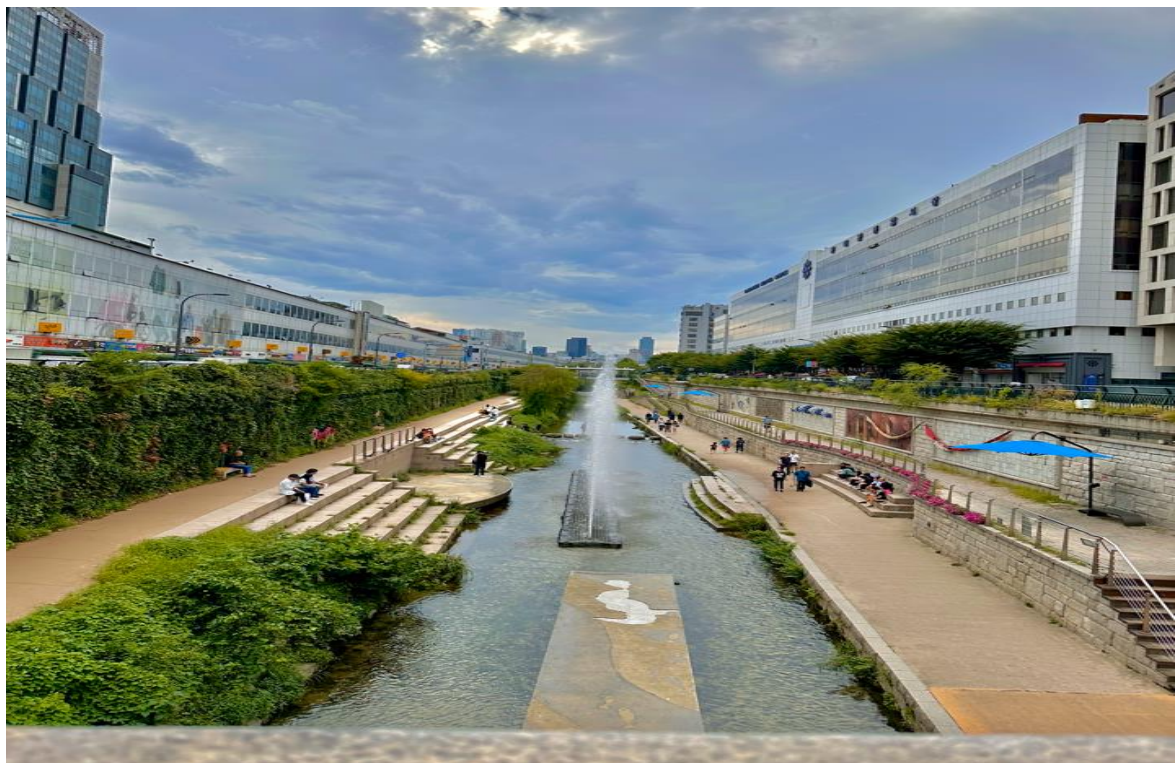




Gyeongbokgung Palace



Han River



Cheonggyecheon Stream



National Museum of Korea



Boryeong Beach Mud Festival



With my Co-Fellows Dr. Naibari Brownson, Dr. Young Il Ko, Dr Myung Sup Ko