

Fellow: Dr Tan Jun Hao

MBBS (Sing), MRCS (Ire), MMed (Ortho),

FRCSEd (Orth), FAMS (Sing)

Associate Consultant

University Spine Centre, Department of Orthopaedic Surgery
National University Hospital

**Host: Professor S Rajasekaran**

Chairman, Department of Orthopaedics

Trauma & Spine Surgery



Duration of fellowship: 4/8/2025 - 24/8/2025

I wish to convey my heartfelt gratitude to Professor Rajasekaran, Dr Ajoy Shetty and Dr Rishi Kannan. This experience has been nothing short of transformative. This journey has been a rare and treasured opportunity to immerse myself in a new realm of surgical mastery, enhancing both my clinical acumen and depth of understanding. The fellowship was more than just an expansion of technical knowledge; it was a gateway to global insights, fostering connections and collaboration with world-class experts and igniting a renewed passion for advancing patient care through innovative spine surgery techniques. This experience has not only refined my surgical repertoire but has also broadened my vision as a practitioner dedicated to pushing the boundaries of spinal care.

The Ganga Hospital fellowship, undertaken over three weeks, offered a comprehensive and immersive experience in the practice of spine surgery. The defining feature of the fellowship was the exposure to a high surgical volume, encompassing both routine and highly complex cases. The breadth of cases ensured a diverse learning experience, while the complexity allowed for in-depth discussions on surgical planning, intraoperative decision-making, and technical execution. Each operation was accompanied by structured, step-by-step explanations, which significantly enhanced the clarity and value of the operative learning.

Equally important was the academic environment at Ganga Hospital. Formal and informal discussions around the latest published evidence and current literature in spine surgery formed a critical component of the fellowship. These sessions reinforced the importance of integrating research findings into clinical practice and provided a strong foundation for evidence-based care.

Interactions with peers, fellows, and senior faculty were another highlight of the fellowship. The willingness of colleagues to engage in detailed case-based discussions contributed to a rich academic exchange. These conversations not only broadened my clinical perspective but also strengthened my approach to managing complex cases in my own practice.

Beyond the academic and clinical dimensions, the fellowship fostered the development of professional relationships that I believe will be longstanding and mutually enriching.

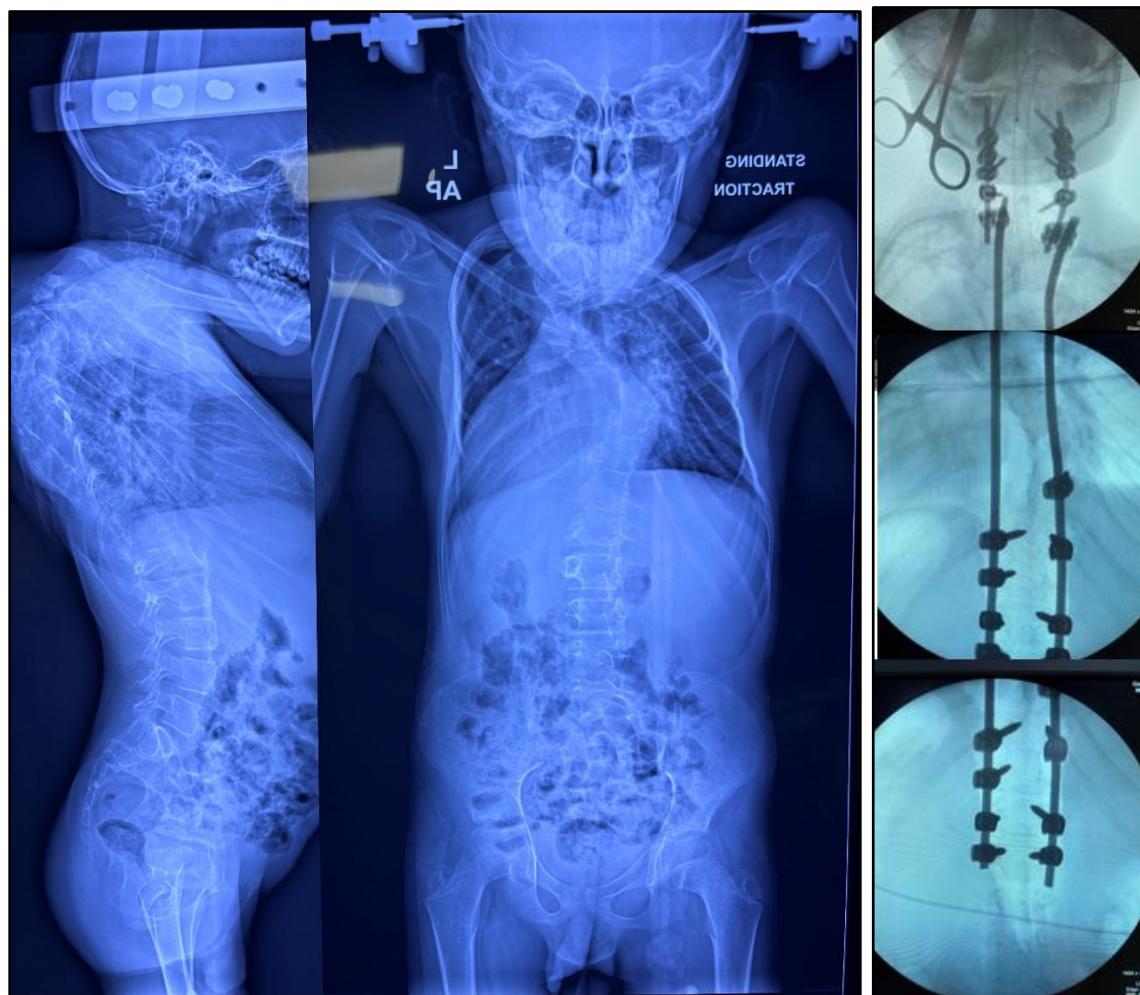
In summary, the Ganga Hospital fellowship provided invaluable surgical exposure, academic enrichment, and professional growth. I now feel more confident in addressing complex spinal conditions and am committed to applying the skills and knowledge gained during this fellowship to enhance the quality of care in my practice.

Ganga Hospital is a high-volume centre, running surgeries six days a week from Monday to Saturday. Over the course of my three-week fellowship, I had the opportunity to observe nearly 150–160 surgical procedures. Of these, three cases stood out as particularly memorable for me:

Case 1: Cervicothoracic kyphosis in a child with NF-1

This was a highly complex case involving a 13-year-old girl with neurofibromatosis type 1 who presented following prior growing rod insertion at another institution. She had developed a severe, rigid cervicothoracic kyphosis. Pre-operative CT imaging demonstrated unintended partial fusion across the kyphotic segment.

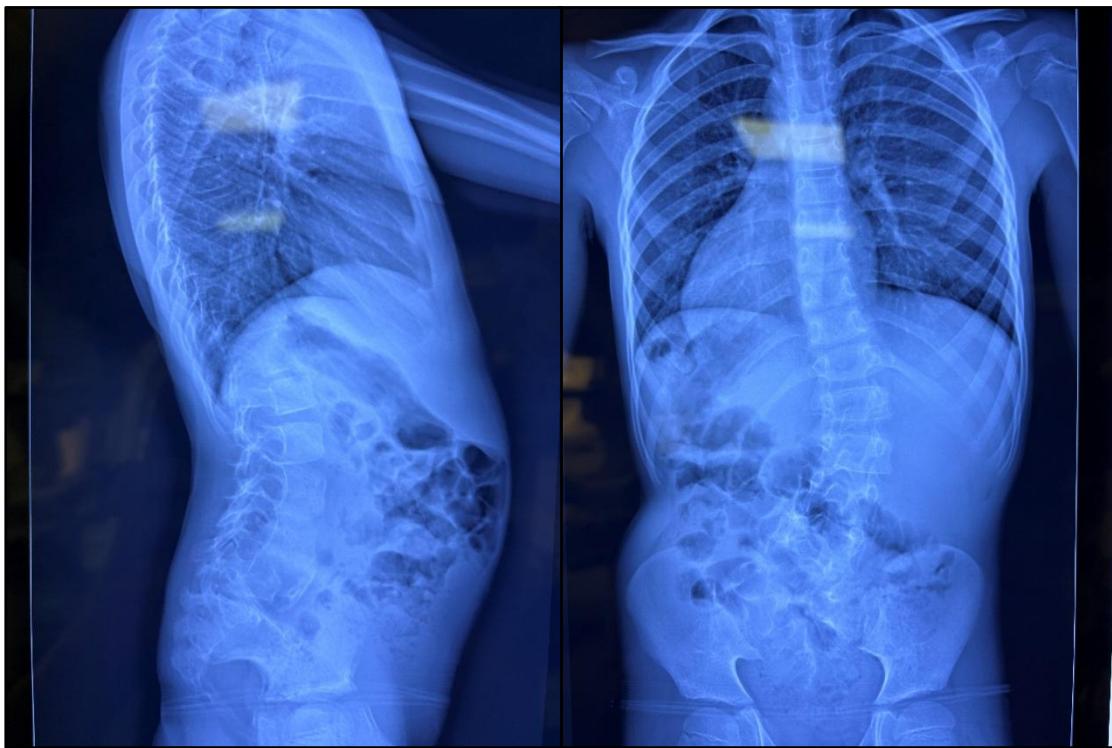
This case provided several important learning points for me. First, it highlighted the significant challenges of spinal instrumentation in patients with NF-1 due to dysplastic and fragile anatomy. Second, it underscored the value of advanced navigation technology in achieving safe and accurate fixation in such complex cases. Third, it demonstrated the effectiveness of both pre-operative and intra-operative traction—up to 50% of body weight—in pre-tensioning the spinal cord and partially correcting the deformity prior to definitive surgical correction.

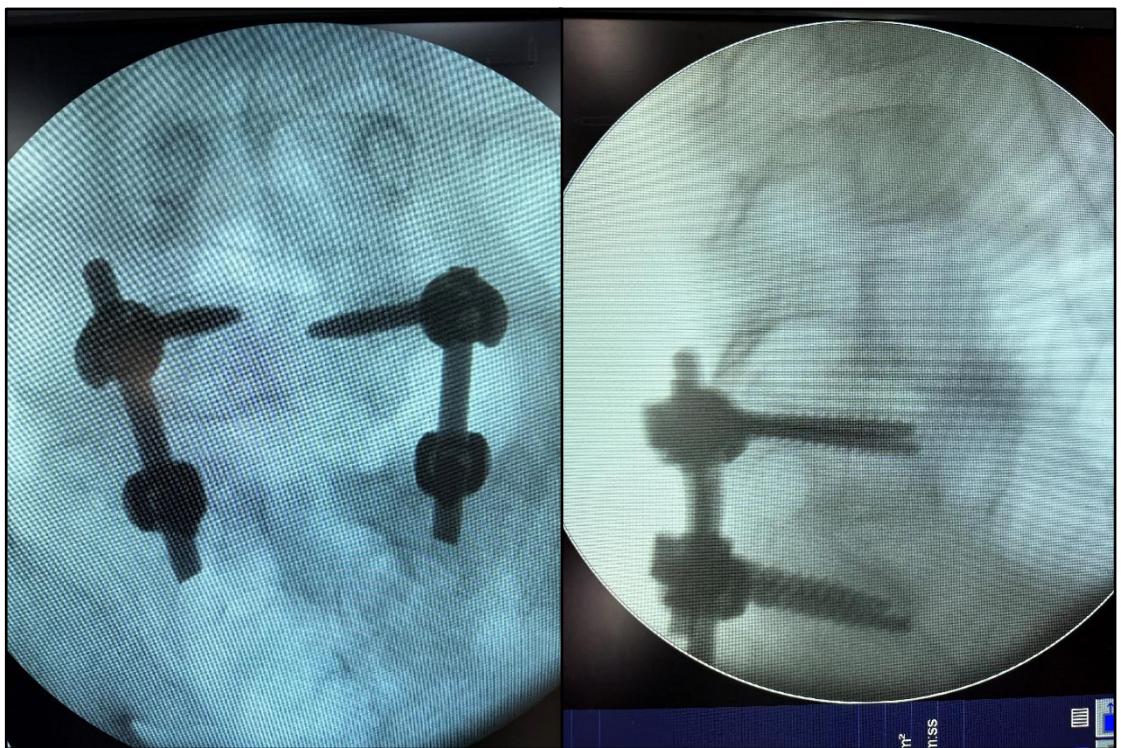




Case 2: L5 hemivertebra

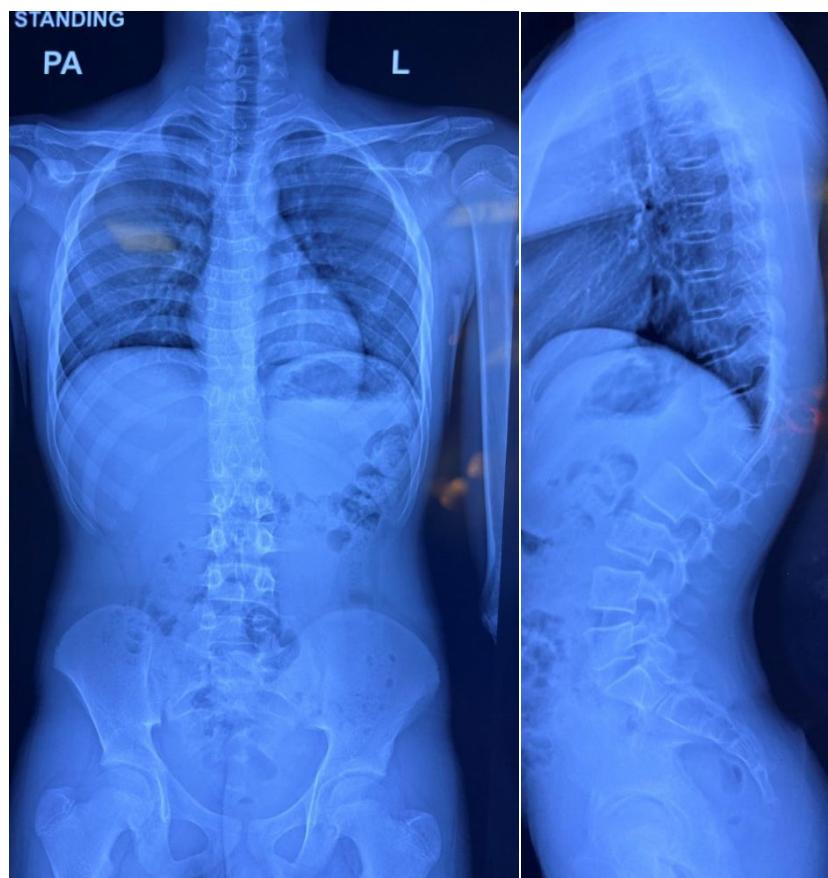
This case involved an 8-year-old boy with an L5 hemivertebra who underwent hemivertebra excision and deformity correction. The use of the decancellation technique—carefully breaking the anterior and lateral cortices with an osteotome, followed by controlled collapse and compression to achieve correction—was executed with exceptional precision. Observing this technique was a joy to watch and highly instructive.

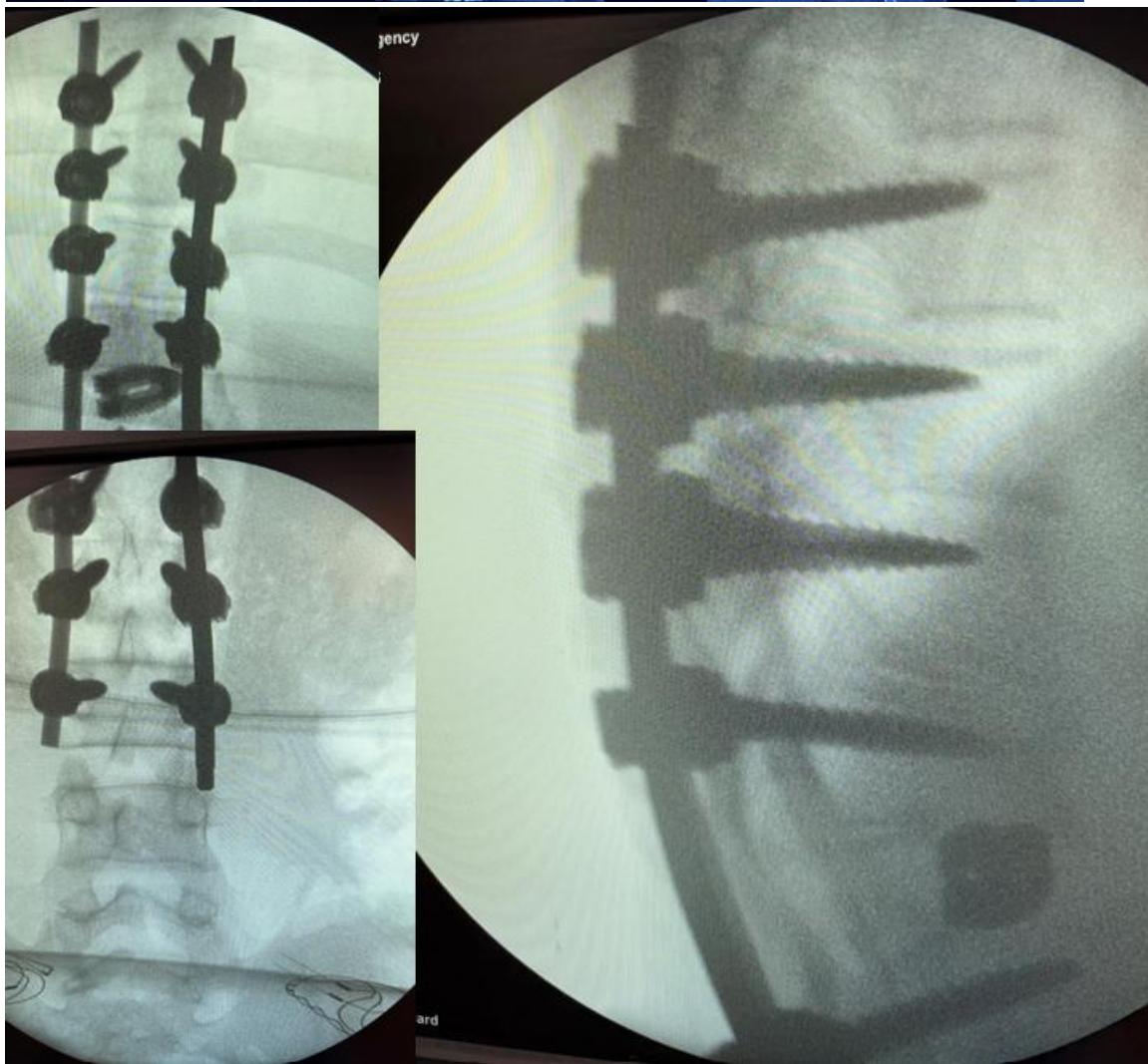
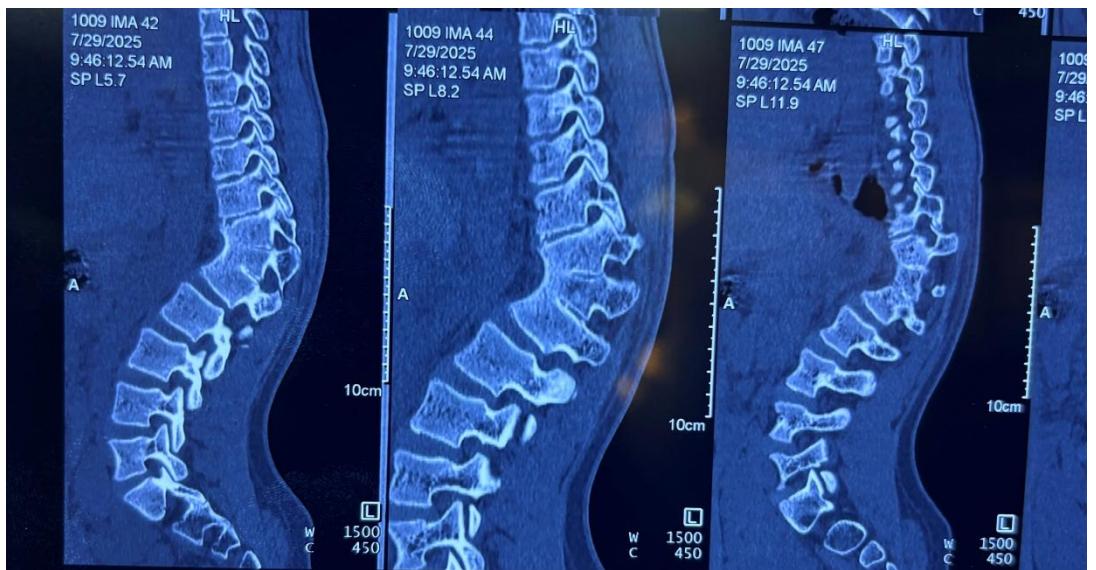




Case 3: Unsegmented bar with congenital kyphosis

This was an 8-year-old boy with a congenital unsegmented bar resulting in progressive thoracolumbar kyphosis. A T12 pedicle subtraction osteotomy was performed, with insertion of a cage to reconstruct the anterior column. The procedure was executed masterfully, with meticulous attention to detail during the osteotomy. Despite the complexity and extent of the surgery, blood loss was kept well within manageable limits. It was a privilege to observe the procedure.





Weekly teaching and research sessions

During the fellowship, I had the privilege of attending the weekly teaching sessions at Ganga Hospital, chaired by Professor Rajasekaran. These sessions provided an outstanding forum for structured academic discussion and critical appraisal of complex spinal conditions. I was given the opportunity to present our research work from National University Hospital, Singapore, and to engage in meaningful exchange with colleagues regarding contemporary developments in spinal surgery from India and Myanmar.

In addition to the academic conferences, regular bedside teaching sessions were conducted in the pre-operative setting. Each session, typically lasting one hour, involved a systematic and comprehensive review of patient history, detailed physical examination, radiological evaluation, pathophysiology, and the underlying biomechanics of spinal disorders. These sessions were highly educational and significantly enhanced my clinical reasoning and diagnostic skills, particularly in refining the precision and thoroughness of my physical examination technique.



Sight-seeing

Coimbatore is a beautiful and vibrant city, combining the charm of a traditional cultural hub with the energy of a modern urban center. Surrounded by the scenic Western Ghats, the city offers a refreshing blend of natural beauty, rich heritage, and warm hospitality. Throughout my stay, I found it to be a welcoming environment with many interesting places to explore and experience.

I visited the Maruthamalai Marudhachalamurthy Temple, a renowned hilltop temple dedicated to Lord Murugan. The journey to the temple was itself memorable, offering panoramic views of the surrounding hills and lush greenery. From the summit, the breathtaking landscape unfolded in all directions, providing a serene and inspiring atmosphere. The visit allowed me to appreciate not only the spiritual significance of the site but also the deep cultural traditions that are integral to daily life in the region.

Beyond its landmarks, Coimbatore impressed me with its vibrant local community, diverse cuisine, and relaxed pace of life. These experiences outside the hospital enriched my fellowship tremendously, giving me a deeper understanding of the social and cultural context in which medicine is practiced in India.



Collaborative Engagements

Finally, the fellowship offered an unparalleled opportunity for networking and building meaningful professional relationships. I was fortunate to meet numerous friends and colleagues from diverse backgrounds, many of whom I would not have had the chance to connect with otherwise. These interactions went beyond formal academic discussions, allowing for the exchange of experiences, insights, and perspectives on clinical practice, research, and education in spine surgery.

The friendships and professional connections forged during this fellowship have been deeply rewarding, both intellectually and personally. Sharing ideas, discussing challenges, and learning from one another fostered a sense of community and collaboration that I will carry forward in my career. The warmth and generosity of everyone I met made the experience all the more memorable and inspiring.





Final thoughts

I am grateful to the Asia Pacific Spine Society (APSS) for the opportunity to undertake the spine fellowship program. The fellowship substantially broadened my knowledge of spinal deformity, operative strategies, and comprehensive patient management. I greatly value the mentorship, clinical exposure, and academic development gained during this period.