CASE STUDY SERIES

Single Position Lateral Surgery featuring ExcelsiusGPS® and ELSA®-ATP

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ExcelsiusGPS®

PRE-OP CT



CORONAL



SAGITTAL



AXIAL



SAGITTAL

Patient History

A 71-year-old woman presented with chronic low back, right buttock, and leg pain that had shown no clinical improvement with non-operative treatment over several years. X-rays and MRI revealed degenerative disc disease and central canal stenosis at L4-L5 with moderate degenerative scoliosis and degeneration of the facet joints.

She experienced partial and transient pain relief with an epidural block at L4-L5. She was then considered for operative treatment of L4-L5 stenosis with an anterior-to-psoas (ATP) approach utilizing the ELSA®-ATP spacer and posterior screws, as well as pedicle screw and rod fixation using the ExcelsiusGPS® for robotic navigation.



Surgical Treatment

To address the patient's symptoms, the surgical treatment required an ATP approach to insert and stabilize the L4-L5 disc space with the ELSA®-ATP spacer and CREO MIS® robotic instruments with an aim to restore disc height and lordosis, and thereby indirectly decompress the cauda equina.

INTRA-OP RADIOGRAPHS







POST-OP RADIOGRAPHS



PA LATERAL AP LATERAL

Results

The patient was able to walk the morning after surgery. Three days after the surgery, she was discharged from the hospital with resolution of her chronic back pain and right leg pain. Post-op X-rays demonstrated correction of the disc asymmetry, improved segmental lordosis, and increased disc height. This surgery was performed in a single lateral decubitus position for shorter operative time and efficiency in the OR.

"The reliability of ExcelsiusGPS" robotic navigation ensures confidence while treating my patients. The robot drives efficiency in the OR and allows for a truly minimally invasive surgery when combined with the benefits of an ATP approach using the ELSA"-ATP spacer."

- John Choi, MBChB, FRACS, FAorthA

SUMMARY		
Parameters	Pre-Op	Post-Op
L4-L5 lordosis	19.8°	23.7°
L4-L5 disc height	3.1mm	14.3mm

