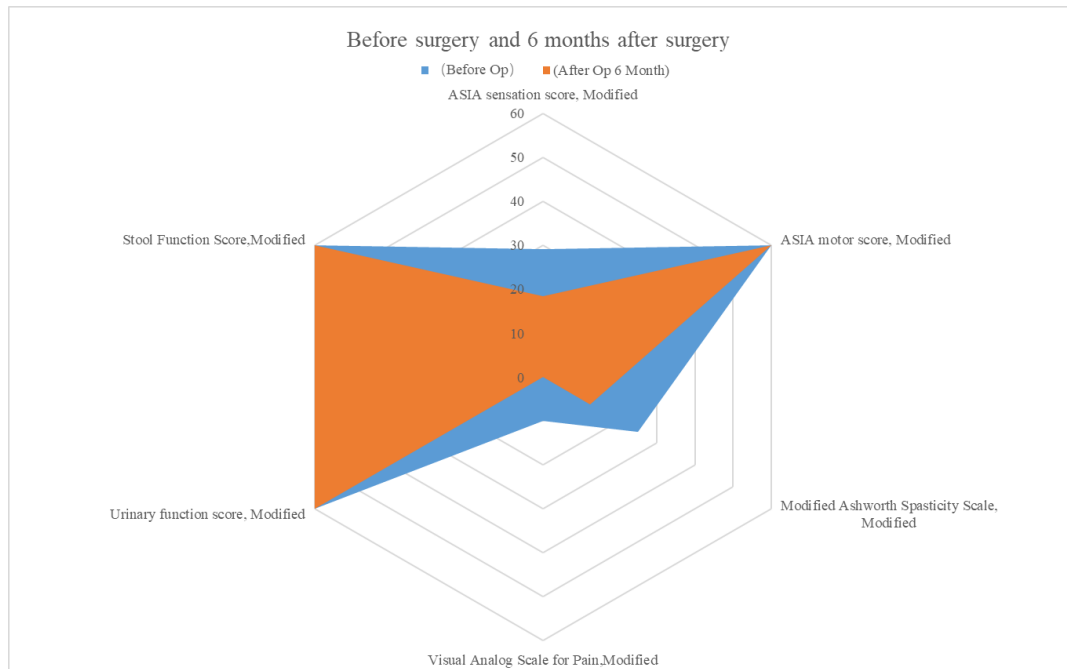
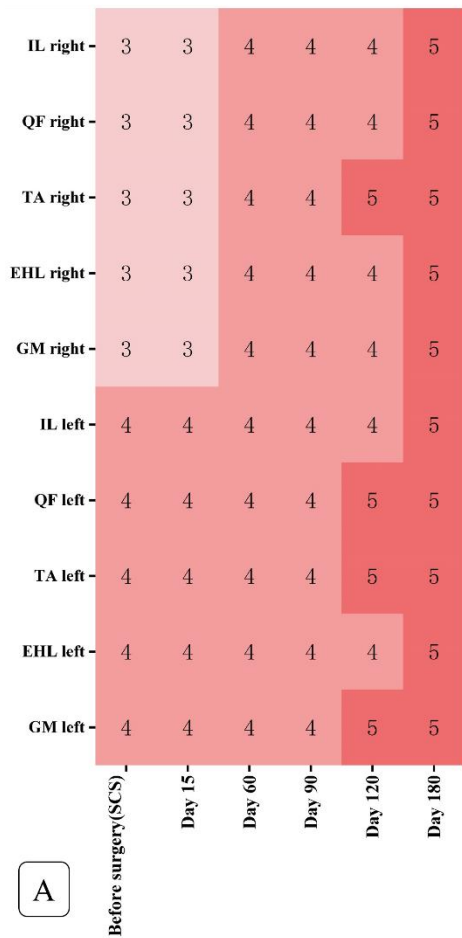


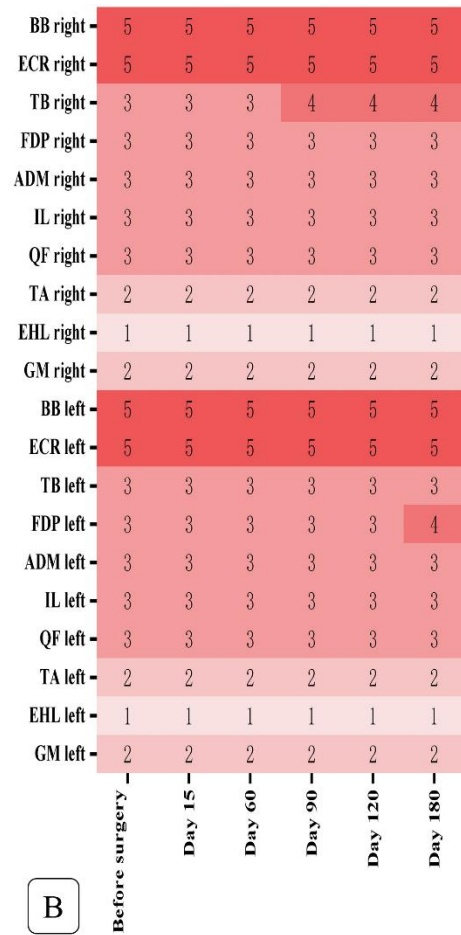
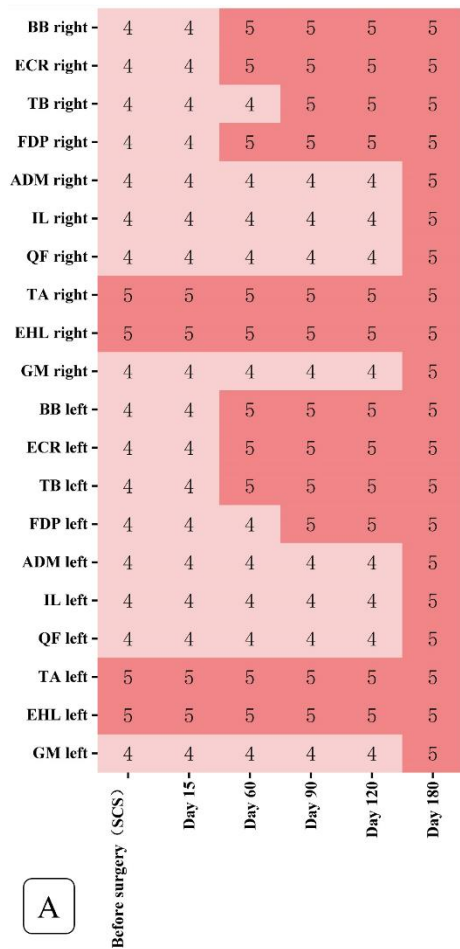
# Supplement Material



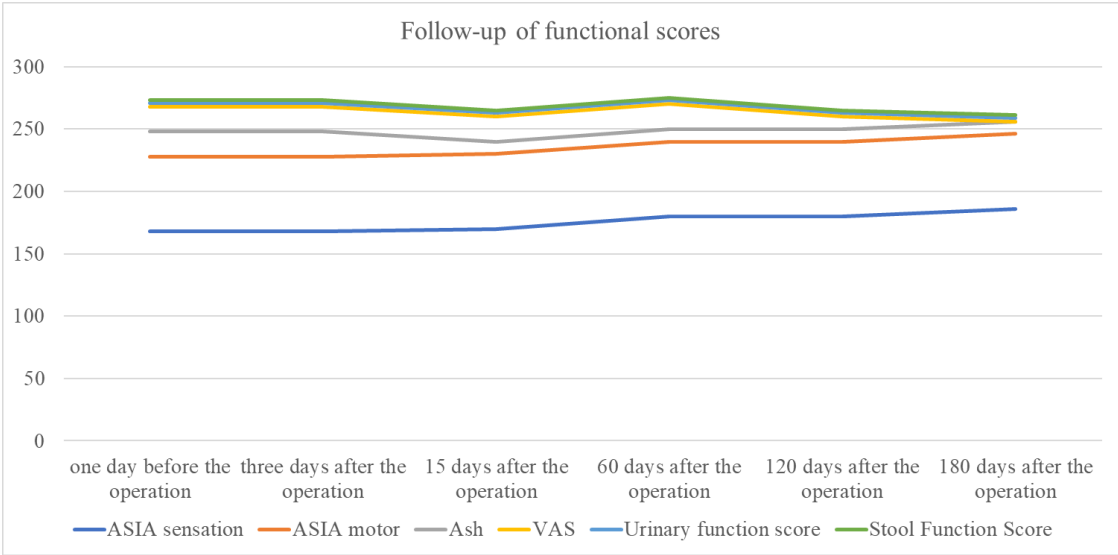
**eFig.1. Radar chart of the clinical characteristics of the treatment group before surgery and 6 months after surgery** (Note: Modified-For each score, the percentage was calculated by dividing the individual score by the maximum possible score for that scale and then multiplying by 100%. A higher percentage indicates more pronounced functional impairment.)



**eFig.2 comprehensive comparison of functional recovery heatmap between spinal cord injury patients who received eSCS following decompression surgery**



**eFig.3 Comprehensive comparison of functional recovery heatmap between spinal cord injury patients who received eSCS following decompression surgery**



**eFig.4. The longitudinal dynamic changes of functional score during follow-up**



**eFig.5. Functional recovery following eSCS implantation.**

**eTable.1. Comparison of the short-term functional recovery between the SCS + PT and PT-only groups**

Functional recovery	SCS + PT (n = 15)			PT (n = 15)		
	Positive	Unchanged	Positive rate(%)	Positive	Unchanged	Positive rate(%)
Sensation	14	1	93.3	9	6	60.0
Strength	7	8	46.7	2	13	13.3
Muscle spasticity	11	4	73.3	4	11	26.7
VAS Pain	9	6	60.0	3	12	20.0
Urine function	3	12	20.0	2	13	13.3
Stool function	2	13	13.3	2	13	13.3

Note: The positive rate (%) presented in reflects the percentage of participants who achieved clinically meaningful improvement in each functional domain.

**eTable.2. Comparison of scores between the postoperative SCS+PT group and the PT group**

Variables	Groups		<i>P</i> value
	eSCS + PT (n = 15)	PT (n = 15)	
ASIA sensation score, mean (SD)	159(37.0)	145(51.6)	0.396
ASIA motor score, median (IQR)	60(0-80)	30(0-75)	0.343
Modified Ashworth Spasticity Scale, median (IQR)	20(10-32)	0(0-10)	0.009
Visual Analog Scale for Pain, median (IQR)	20(0-30)	20(0-30)	0.603
Urinary function score, median (IQR)	3(1-4)	2(1-3)	0.527
Stool Function Score, median (IQR)	3(2-4)	2(1-3)	0.263