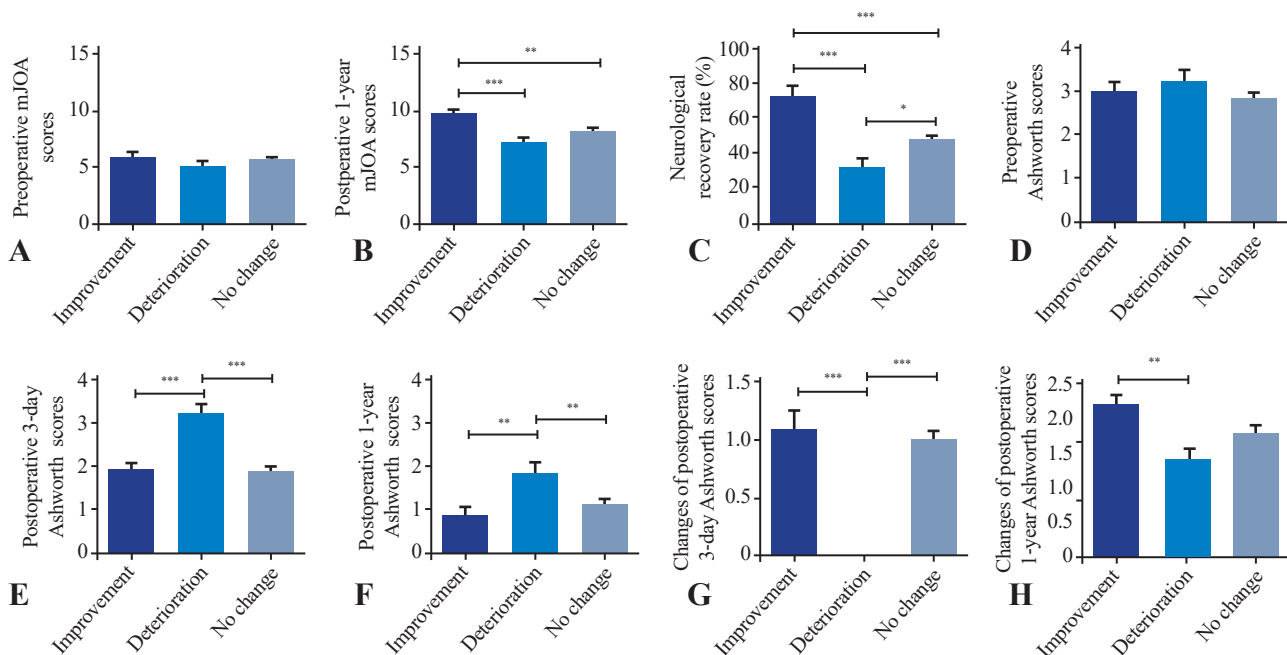


**Supplement 1.** Design of patient selection. TOLF, thoracic ossification of ligamentum flavum; COR, canal occupying ratio. a)At least one of the segments with TOLF which had spinal canal occupying ratio in cross-sectional computed tomography  $\geq 40\%$ .



**Supplement 2.** Both preoperative and postoperative clinical assessments among the intraoperative neurophysiologic monitoring (IOM) improvement, IOM deterioration, and no change groups. (A) There was no difference of preoperative modified Japanese Orthopaedic Association (mJOA) scores among the different IOM groups. (B) Postoperative 1-year mJOA scores in IOM improvement group were significantly higher than that in the other two groups. (C) Neurological recovery rates in IOM improvement group were significantly higher than that in the other two groups, and the patients in the no change group showed higher neurological recovery rates compared to the IOM deterioration group. (D) There was no difference of preoperative Ashworth scores among the different IOM groups. (E) Postoperative 3-day Ashworth scores in IOM deterioration group were significantly higher than that in the other two groups. (F) Postoperative 1-year Ashworth scores in IOM deterioration group were significantly higher than that in the other two groups. (G) Changes of the Ashworth scores before and 3 days after operation in IOM deterioration group were significantly lower than that in the other two groups. (H) Changes of the Ashworth scores before and 1 year after operation in IOM deterioration group were significantly lower than that in the IOM improvement group. \* $p < 0.05$ , \*\* $p < 0.01$ , and \*\*\* $p < 0.001$  (Statistical differences between the two of the different IOM groups).