

**Supplementary Fig. 1.** Study flowchart. Among the 1,080 patients initially enrolled in the registry, we excluded nonsurgical cases (n = 20), cases of spinal lipoma (n = 18) and myxopapillary ependymoma (n = 11), cases that underwent external decompression only (n = 1), and those that underwent surgery before 2008 (n = 3). We classified pediatric patients (< 18 years) (n = 58), younger patients (aged 18–64 years) (n = 739), and older patients (over 65 years) (n = 230), respectively. In total, 81 younger and 47 older patients did not have modified McCormick scale (mMCs) results at 6 months and were excluded from this analysis. Finally, 841 adult patients with available mMCs data at 6 months were examined in this analysis. There were 658 younger (78.2%) and 183 (21.8%) older patients.