



Editorial



From the Editor-in-Chief: Featured Articles in the September 2023 Issue


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Among the papers published in the September issue of Neurospine, the featured articles selected by editors are as follows.

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“The Posterior Cranial Vertical Line: A Novel Radiographic Marker for Classifying Global Sagittal Alignment” by Park et al.²

The study introduces a new radiographic measurement called the posterior cranial vertical line (PCVL) to better understand global sagittal alignment in adults. A multicenter review of 334 asymptomatic volunteers aged 20–79 was conducted, and the PCVL was classified into 3 grades based on its relation to other anatomical points. Most subjects (83%) were grade 1, followed by grade 2 (15%), and only 3% were grade 3. The study found that higher PCVL grades correlated with aging and specific alignment changes. The PCVL is easy to implement and interpret, and it also incorporates cervical alignment parameters like C2–7 sagittal vertical axis. Overall, the PCVL provides a meaningful marker for assessing global sagittal alignment.

“Simultaneous Single-Position Lateral Lumbar Interbody Fusion Surgery and Unilateral Percutaneous Pedicle Screw Fixation for Spondylolisthesis” by Lv et al.¹

The study compares the effectiveness of 2 surgical methods for treating lumbar spondylolisthesis: lateral lumbar interbody fusion with lateral single screw-rod and unilateral percutaneous pedicle screw fixation (LLIF-LSUP) and minimally invasive transforaminal lumbar interbody fusion with bilateral pedicle screw fixation (MIS-TLIF-BPS). The LLIF-LSUP procedure resulted in shorter operating times, less hospital stay, and lower blood loss compared to MIS-TLIF. Both methods provided significant pain relief, with no statistical differences in visual analogue scale and Oswestry Disability Index (ODI) scores or in complication rates. LLIF-LSUP had advantages in certain postoperative radiographic measurements. The fusion rate was higher for LLIF-LSUP at 3 months but similar to MIS-TLIF at longer follow-up intervals. Overall, both methods yielded satisfactory results with few complications.

“Surgical Outcomes of Symptomatic Intramedullary Spinal Cord Cavernous Malformations: Analysis of Consecutive Cases in a Single Center” Cai et al.³

The study focuses on intramedullary spinal cavernous malformations (ISCMs), rare vascular spinal cord lesions. It examined 29 patients who underwent microsurgical treatment, documenting symptoms, lesion size, and surgical outcomes. Most patients presented with



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bowel/bladder dysfunction, followed by sensory deficits and gait issues. Postsurgery, 65.5% improved, 13.8% remained stable, and 20.7% worsened. The annual hemorrhage risk was 2.1% per patient-year. Patients with larger lesions and previous hemorrhages faced increased risk of rehemorrhage. The study concludes that the risk of rehemorrhage is significant in symptomatic ISCM patients.

“Selection of Optimal Lower Instrumented Vertebra for Adolescent Idiopathic Scoliosis Surgery” by Seo et al.⁴

The study focuses on adolescent idiopathic scoliosis (AIS), a condition affecting about 2% of adolescents. The aim of AIS surgery is to stop curve progression, correct the spinal deformity, and preserve spinal mobility. Despite advancements in surgical algorithms and classification systems, choosing the right fusion level remains a debated issue. The study reviews existing literature on fusion level selection and presents current concepts about selecting the lower instrumented vertebra for AIS surgery.

“Outcomes of Surgical Treatment for Patients With Mild Scoliosis and Age-Appropriate Sagittal Alignment With Minimum 2-Year Follow-up” by Scheer et al.⁵

The study aimed to assess the surgical outcomes in patients with mild scoliosis and age-appropriate sagittal alignment. A retrospective review of a prospective adult spinal deformity database was conducted, including 151 patients (82.8% women; average age, 56.4 years). The Mild Scolio group (27.8% of the total) had significantly worse baseline leg pain, ODI, and physical composite score scores but showed significant improvement in

all health-related quality of life measures 2 years postsurgery. The study concluded that despite a high complication rate, including a 35.7% reoperation rate, patients with mild scoliosis benefited from surgical correction and stabilization at the 2-year follow-up.

- **Conflict of Interest:** The author has nothing to disclose.

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