Surgical Outcomes in Patients with Congenital Cervical Spinal Stenosis
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Disclosures

• None
Introduction

• Congenital cervical spinal stenosis (CCSS) is a condition that predisposes patients with cervical spondylosis to cervical spondylotic myelopathy (CSM) at a younger age.

• The surgical outcomes of CCSS can vary and differ from the outcomes of patients with normal cervical canal parameter.
Methods

• Retrospective chart review was performed to identify CSM patients who underwent surgeries from 2010 to 2016.

• Demographics, adverse outcomes, disability indices and health-related quality of life (HRQOL) measures were obtained.

• The diagnostic differentiation between CCSS and normal canal diameter was made on cervical lateral radiographs using the Torg-Pavlov ratio and the lateral mass (LM)/canal diameter (CD) ratio (LM/CD ratio ≥ 0.735, Torg-Pavlov ratio < 0.82 as the definition of CCSS).
Results

• We identified 69 patients who met the inclusion criteria, and had complete pre-and postoperative radiographic and outcomes data.

• In univariable analysis, there was a significant association in CCSS stenosis defined by the LM/CD ratio and HRQOL.

• However, in multivariable analysis there was no significant association in HRQOL measures, postoperative complications, reoperation rates, and mJOA scores with CCSS.
Discussion

• Studies on surgical outcomes in CCSS are limited by sample size and difficulty with definitive diagnosis.

• In our retrospective analysis, there were no significant differences in surgical outcomes in patients with CCSS when compared to the cohort with normal canal diameter.

• We diagnosed CCSS with simple radiographic measurements. Despite widespread availability of advanced imaging, plain radiographs should be primarily used as an inexpensive modality for CCSS diagnosis.
Summary Points

- CCSS is a condition that predisposes patients with cervical spondylosis to CSM at a younger age.
- In our retrospective analysis, there were no significant differences in surgical outcomes in patients with CCSS when compared to the cohort with normal canal diameter.
- Further prospective studies are warranted to determine the association in post-operative clinical outcomes and the cervical canal diameter.