



Cervical Spondylotic Myelopathy and its Association with Increased Healthcare Cost and Utilization After Surgery

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Introduction

Cervical spondylotic myelopathy (CSM) is often a progressive, debilitating neurological condition, resulting from compression of the spinal cord. 2 Surgical decompression and fusion is safe and associated with improved neurological function postoperatively for select patients. 1 Recent trends in hospitalizations and healthcare cost and utilization for CSM are lacking.

Methods

We retrospectively reviewed all hospital encounters for ICD-9-CM principal diagnosis code 721.1, which codes for cervical spondylotic myelopathy. Of those patients, 91 patients underwent surgery and met inclusion criteria. Nurick grade was used to assess disease severity. Age, sex, race, body mass index (BMI), and Nurick grade were evaluated in their relation to hospital length of stay (LOS) and discharge disposition. We assumed that patients requiring longer hospital stays and discharge to inpatient rehab utilized greater healthcare resources than their counterparts. Data was analyzed using SPSS statistical analysis software.

Results

The average patient was 52.1. Increased Nurick grade was associated with increased hospital length of stay ($p < 0.001$). The average LOS for Nurick grade 1 was 2.57 days, while the mean LOS was 11.5 days for Nurick grade 4. Body Mass Index was associated with increased LOS ($p = 0.001$). Higher Nurick scores were also associated with discharge to inpatient rehab rather than discharge to home ($p < 0.05$). Age, race, and sex were not associated with increased hospital LOS or discharge to inpatient rehab.

Conclusions

Our data suggest that patients with higher Nurick scores and worse cervical spondylotic myelopathy had longer hospital stays and were more likely to be discharged to inpatient rehab rather than home. Our data further suggest that Nurick grade 4 cervical spondylotic myelopathy patients are associated with increased healthcare cost and utilization when compared to other CSM patients.

Learning Objectives

Examine the association between cervical myelopathy disease severity and increased hospital length of stay.

References

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