Benefits of Early Ambulation in Patients Undergoing Lumbar Decompression

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Disclosures

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Introduction

- Benefits of early ambulation well studied in other surgical specialties
- Early ambulation post CABG, 3-4 hours post-cardiac catheterization, 24 hours post-knee replacement, 24-36 hours post-stroke
- Better post-operative pain control
- Lower rate of deep venous thrombosis
- Earlier discharge from the hospital
- Less need for post-operative opiate usage
Methods

- Initiated as QI project in 10/2012
- All patients undergoing lumbar laminectomy at MCF from 2009 to 2015
- Looked at 2009-2011 (historical control) vs. 2013-2015 (experimental group)
- Excluded 2012 when the early ambulation protocol was initiated (transition period)
- Searched MayoLog database from 2009 to 2015 using keywords: laminectomy, foraminotomy, hemilaminectomy, microdiskectomy
- Excluded non-lumbar cases, fusions
- Excluded CSF leak, lumbar drain placement and other reasons early mobilization was contraindicated (epidural hematoma)
Results

- Resulted in 1293 patients (621 vs. 671 patients)
- Early ambulation protocol: ambulation within 1 hr of admission to the floor
- After exclusion, 402 (late ambulation) vs. 635 (early ambulation)
- LOS in the hospital 2.6 vs. 2.12 days (p = 0.0014)
Discussion

- Subgroup analysis of those undergoing specifically laminectomy for lumbar stenosis
- Evaluate early ambulation in MIS decompressions
- Fusions (graded analysis)
- Early ambulation in PACU
- Pain regimen: does early ambulation result in less pain medication usage?
- Cost analysis
Summary

- **Limitations**
  - Retrospective chart review
  - Inconsistent documentation of number of walks
  - Missing time to 1st walk

- **Compliance with early ambulation protocol**
  - Ambulation within 1 hour of arrival to neurosurgical floor
  - Ambulate at least 4 times a day