

Decreasing Length of Stay for Patients Undergoing Microvascular Decompression Does Not Affect Long Term Outcomes.

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Introduction:

- Current literature reports an average patient length of stay (LOS) of 2-3 days following microvascular decompression (MVD) surgery.
- At our institute, a new protocol was implemented to improve LOS for patients undergoing MVD.
- We sought to investigate any differences in outcomes and complications as a result of this protocol implementation(1, 2).

Methods:

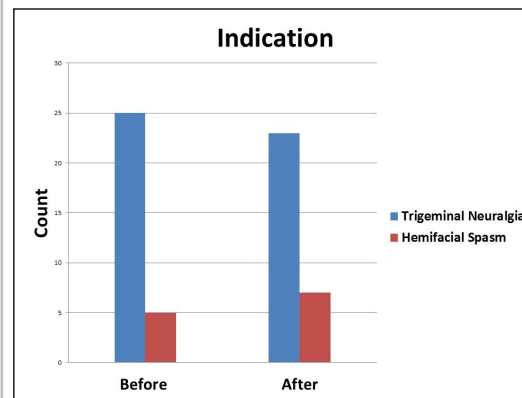
- This is a single center IRB approved retrospective study.
- Patients who underwent MVD from 11/2008 to 03/2015 were reviewed.
- No changes were made to standard operating procedures or surgical technique.
- Patients were divided into 2 groups: "before" and "after" protocol implementation.

Implemented Protocol:

- use of scopolamine patch to minimize postoperative nausea
- strict avoidance of narcotics
- early ambulation; early removal of Foley catheter and arterial lines.
- extensive patient education regarding the procedure and postoperative expectations.

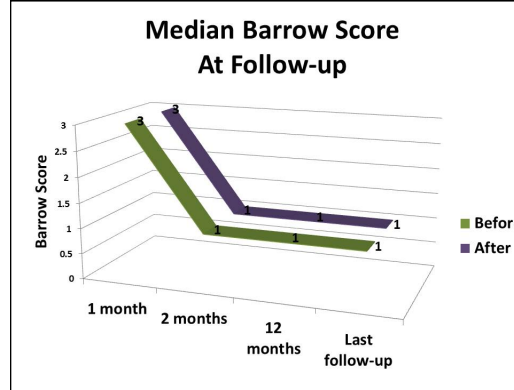
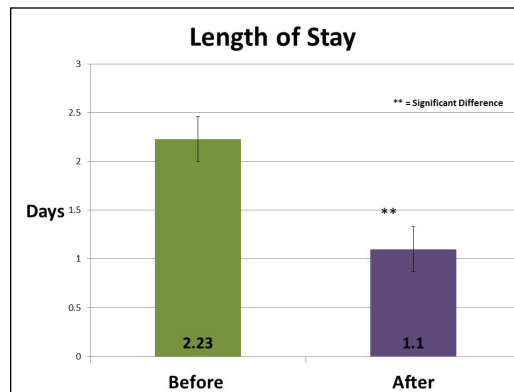
Demographics and Past Medical History

- No significant difference in Age or Gender before and after
- There was no significant difference in PMH before and after. With the exception of malignancy (Before = 1, 3.3%, After = 6, 20%, $p = .04$)



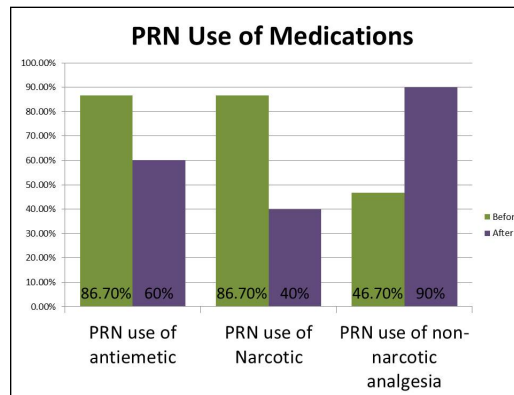
Results

- LOS decreased significantly after protocol implementation.
- No difference was noted in outcomes among both the groups at 1, 3, and 12 months, or at last follow up.
- No significant differences in rates of post-procedural complications ($p=0.15$) or readmission rates ($p=0.31$).
- PRN use of antiemetic decreased significantly from 26 individuals to 18 individuals (87% to 60%, $p=0.02$).
- Median utilization for narcotic analgesia: 7 requests before, 0 after ($p<0.0001$).



Barrow Score System

- 1 - Complete relief, no medication
- 2 - Partial relief, no medication
- 3 - Partial relief, with medication
- 4 - Some pain, not controlled by medication
- 5 - Severe pain, with medication providing no relief



Conclusions

Implementing simple changes in perioperative care of MVD patients can half the length of stay without affecting short and long-term outcomes. These results may be readily generalizable to other centers.

References

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- (2) McLaughlin N, Buxey F, Chaw K, Martin NA. Value-based neurosurgery: the example of microvascular decompression surgery. *Journal of neurosurgery*. 2014 Feb;120(2):462-72. PubMed PMID: 24286152.