## Objective

To evaluate the effect of integrating osteopathic manipulative treatment (OMT) in the acute postsurgical care of participants after vestibular schwannoma resection

## Methods

This retrospective observational cohort study took place at a single tertiary care academic health center with a high-volume vestibular schwannoma program. Adults 18 years or older who underwent primary microsurgical resection of a vestibular schwannoma between November 2017 and October 2021 were included in the study. Participants were grouped by exposure to postoperative OMT, defined as receiving at least one OMT session during the postresection admission. The primary outcome measure was total inpatient length of stay (days), and the secondary outcome measures were daily and total opioid use (morphine milligram equivalents–MME).

## Results

There were 502 participants included in this study, 286 (56%) received OMT during their postresection hospitalization. The two groups were similar in demographics (except race, $p=0.03$), health history, tumor size, surgical approaches, and postoperative course. Participants who received postoperative OMT had a significantly shorter hospital length of stay compared to participants who did not receive OMT (OMT: 3.42 ± 1.41 days, 95CI: 3.26–3.59; no OMT: 3.96 ± 2.35 days, 95CI: 3.65–4.28; $F(1,501) = 10.29$, $p = 0.001$). The OMT group had a significantly lower daily opioid consumption over time ($F(1,1813) = 18.00$, $p<0.001$).

## Conclusions

Receiving OMT after vestibular schwannoma resection is associated with a shorter length of stay and less daily opioid use.