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Neuraxial Anesthesia is Associated with Decreased Length of Stay Following ORIF of Distal Radius Fracture

Introduction:
Although many anesthesia modalities are available for distal radius fracture repair, neuraxial anesthesia is potentially associated with improved surgical outcomes. The goal of this study was to determine the relationship between anesthesia modality and total length of stay among patients receiving open reduction and internal fixation (ORIF) of distal radius fracture.
Methods:
A retrospective cohort study using NSQIP data (2012–2021) analyzed ORIF patients receiving neuraxial or general anesthesia. Potential confounders were basic demographics (age, sex, race, ethnicity), baseline health status (functional status, ASA classification, BMI, smoking, diabetes), and procedure characteristics (admission source, in/out-patient setting, emergency case designation). Chi-square testing assessed differences between anesthesia modalities. Adjusted log-linear regression was performed to assess neuraxial anesthesia impact on total length of stay.
Results:
Of the 27,290 patients that underwent ORIF of distal radius fracture 78(0.3%) received neuraxial anesthesia. In both cohorts the highest proportion of patients were female, White, non-Hispanic, independent functional status, non-smokers, and non-diabetic, being admitted from home for elective surgery. Patients receiving neuraxial versus general anesthesia were more likely to be older (+80 vs. 60-69), have lower BMI (normal vs. obese), and be operated on in an inpatient setting [Table 1]. Log- linear analysis, adjusted for potential confounders, showed patients receiving neuraxial anesthesia had 0.41 times decreased rate ratio (95% CI 0.19 to 0.64; $p < 0.001$) of their length of stay compared to those receiving general anesthesia [Table 2].
Conclusion:
In ORIF for distal radius fracture procedures, patients administered neuraxial anesthesia have an expected length of stay 41% that of patients who received general anesthesia. Further studies may describe additional benefits of anesthesia modalities.