

Patient Compliance During Peripheral Vascular Interventions: Room for Improvement?

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Background

For patients receiving Procedural Sedation and Analgesia (PSA), patient cooperation is crucial as patients remain continuously aware of operating room activity and can be asked to perform tasks such as prolonged breath-holds. This survey aimed to collect information on patient compliance with on-table instructions and its relation to periprocedural outcomes from surgeons nationwide performing peripheral vascular interventions (PVI) under PSA.

Methods

A 9-question online survey was sent to 383 vascular surgeons (including both vascular surgery attendings and trainees) across the United States through REDCap from August 30 to September 21, 2021, with responses closed on October 30, 2021. The survey response was analyzed with descriptive statistics.

Results

83 (21.6%) vascular surgeons responded to the survey, of which 67 (80.7%) were attending vascular surgeons and 16 (19.3%) were vascular surgery trainees. 41 (49.4%) respondents performed 11-20 PVI cases under PSA every month, while 31 (41.0%) respondents performed 1-10 PVI cases under PSA every month. 41 (49.4%) respondents reported that in 1-10% of their cases, additional contrast and/or radiation was administered because patient moved on the table or did not cooperate with breath holds; 25 (30.1%) reported that this occurred in 11-20% of their cases, 12 (14.5%) reported that this occurred in 21-50% of their cases and 4 (4.8%) reported that this occurred in over 50% of their cases. In such cases, the majority of respondents reported a 1-10% increase in contrast volume (59.0%), radiation dosage (62.7%), sedative/analgesia administration (46.3%) and procedural time (54.9%). Of cases being converted to general anesthesia due to inadequate patient cooperation, 35 (42.2%) respondents reported between 1-5 per month, and 3 (3.6%) respondents reported between 6-10 per month. Of cases being aborted due to inadequate patient cooperation, 25 (30.1%) respondents reported between 1-5 per month, and 1 (1.2%) respondents reported between 6-10 per month..

Conclusion

A significant fraction of PVI cases performed under PSA result in increased radiation and contrast exposure, sedative administration and procedural time due to inadequate patient cooperation. Further research should be performed to investigate strategies to minimize such adverse patient safety events.

