

Endoscopic Spine Training for Neurosurgical Residents

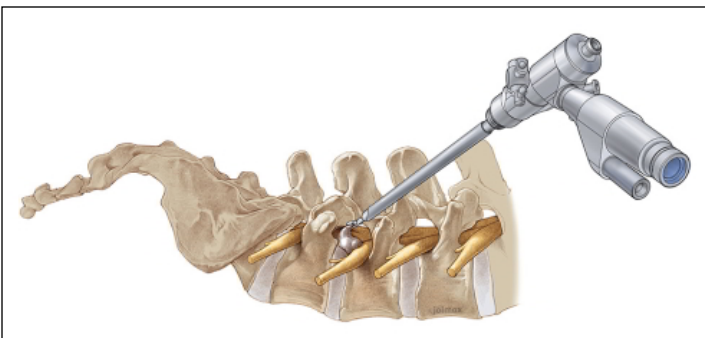
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Introduction

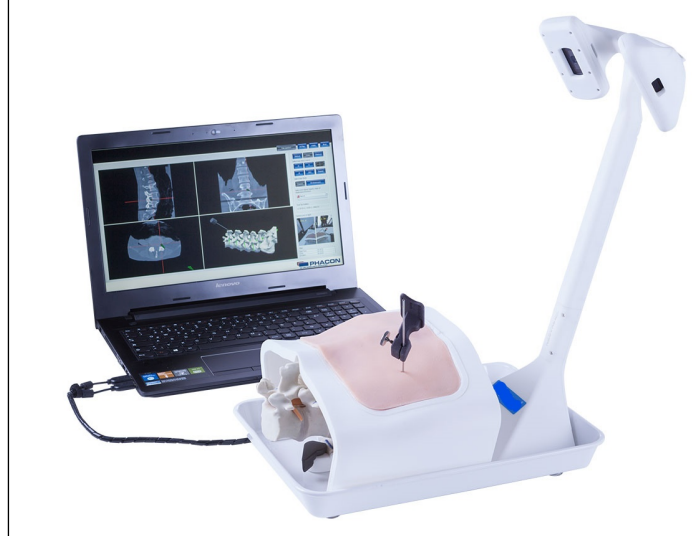
Endoscopic and laparoscopic techniques have become more prevalent throughout surgical specialties over the past several decades leading to the need for specific training programs. The Society of American Gastrointestinal Endoscopic Surgeons (SAGES) states that laparoscopic operations are an integral component of surgical training and the minimum defined case numbers set by the Residency Regulatory Committee (RRC) should be used as a reference point for the required laparoscopic exposure needed for competency. There is currently no RRC requirement for endoscopic spine procedures for neurosurgical residents and as these procedures become more prevalent, training programs will need to be developed.

Methods

We have developed a curriculum for training neurosurgical residents to develop the appropriate skills to become competent to perform endoscopic spine procedures.



Endotrainer Device



Results

The first step in this program is attend a lecture series that covers the use of the spinal endoscope, pertinent surgical anatomy, and different surgical indications and approaches. The second step involves training on a endoscopic training device allowing practice of targeting and approach on an image-guided, realistic physical feedback saw bones model. The third step involves a hands-on cadaver lab covering the handling of the endoscope and the surgical procedures. The final step involves OR exposure to the procedures as an assistant and then transitioning to independent practice under the supervision of a trained faculty member.

Conclusions

We present our unique teaching model for endoscopic spine surgery that promotes robust surgical skill practice outside the OR. We present our experience with neurosurgical residents being exposed to a surgical simulator. We suggest that residents be involved in approximately 20-30 cases to generally attain proficiency with endoscopic spine procedures. We will be exploring this further by dividing residents into 2 groups (a training group and a non-training group) and then objective assessing their performance to assess the success of our program.

Learning Objectives

By conclusion of this session, participants should be able to 1) describe the importance of endoscopic spine training programs for neurosurgical residents, 2) discuss in, in small groups, the need for more standardized training programs and further ways to assess adequacy of training

References

Position Statement on Advanced Laparoscopic Training. Society of American Gastrointestinal and Endoscopic Surgeons. sages.org/publications/guidelines/position-statement-on-advanced-laparoscopic-training/
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