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How do young residents practice laparoscopic surgical skills?

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Objectives: To investigate whether a training system using a dry box is feasible for training young urologists. Despite laparoscopic surgery being widely indicated for several urological diseases, a laparoscopic training system for young urologists has not been fully established yet. However, the learning curve for laparoscopic surgery has not yet been ascertained.

Methods: We continued to test 11 sixth-year residents (postgraduate year: PGY6) and third-year residents (PGY3) in our department in terms of surgical skills using a dry box. We gave them several tasks (cutting and suturing) and let them practice until task completion. We continued to test all participants by these tasks for 16 weeks. Results: At the beginning of the present study, the PGY6 residents achieved significantly better scores than the PGY3 residents. However, the difference between the 2 groups became insignificant over time. Furthermore, statistical analysis revealed that a practice time of 100 minutes per week was the only significant factor affecting the last test score. For the final test, the mean practice time for all participants was 79.1 minutes per week. Conclusions: These results suggest that laparoscopic surgical skills can definitely be polished by adequate voluntary practice.

Editorial Comment

Although genitor-urinary laparoscopy has been established as surgical technique for treatment of urological diseases; training of residents and surgeons has been challenging due to the lack of validated teaching protocols and techniques. The authors have focused on a dry lab exercises that involved mentors and residents in an intensive training schedule demonstrating improvement in laparoscopic surgical skills despite the level of academic training. According to the authors, the only variable significant to improvement of skills was the practice time of 100 min/week practicing a set of laparoscopic exercises defined by the authors. Age, clinical experience, and laparoscopic experience did not affect the outcome of the final evaluation. Certainly, clinical experience in laparoscopy must be correlated to these findings; moreover, a validated skill development program must be created to train our residents and surgeons.

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