Training in Laparoscopic Surgery in Latin America

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Receiving date: January 31, 2017; **Accepted date:** February 24, 2017; **Published date:** February 28, 2017

Abstract

Introduction: The training of Residents and Surgeons in Laparoscopic Surgery in Latin America is performed in the OR (Operating Room) on the patient, which predisposes to the risk of many complications, both during learning as during the daily performance of this intervention.

Objective: To evaluate the efficiency of the basic training program in Laparoscopic surgery in the development of cognitive and motor dexterities and skills.

Methodology: CEPCEA (Center for Studies on Prevention and Correction of Abdominal Diseases) has developed a 5-day teaching system, based on the PBL (Problem-Based Learning) development of tests in manual skills on inanimate objects, biological and human tissue and permanent creation of easy to repeat tips, we combine the best of each continent: the American FLS (Fundamentals of Laparoscopic Surgery) Training, the European-originated Endotrainer and the Japanese KAIZEN. We took a pre-test and a practical post-test to the total cohort of trained surgeons during the period January-December 2016, tests which were based on time and on 20 theoretical questions with a value of 1 point per each correct answer. We used the SPSS v.21 as statistical software.

Results: The population tested consisted of 55 trainees from different Latin-American countries who attended in groups of 4 to 6 participants of general surgery (32), gynecology (11), urology (3), surgery oncology (3), pediatric surgery (1), and others (5) who, on admission, had a mean of peg transfer time of 189.6 seconds, which at the end of their practical training of 4 days was of 68.4 seconds; while the results of the pretest and theoretical posttest showed a media of 5.8 And 14.9 points respectively.

Conclusions: The CEPCEA teaching system is an efficient and necessary method for the development of manual and theoretical skills and dexterities in laparoscopic surgery in the various surgical specialties.

laparoscopic skill test. In a sample of 26 male and female general surgery residents and 25 obstetrics and gynecology residents from two academic centers, they were asked to predict their score before taking the Standardized Skills Examination of Fundamental Laparoscopic Surgery. In the results there was no difference in the actual score based on residence or gender. However, male residents more accurately predicted their scores, while female residents significantly underestimated them. Conclusion: There are gender differences in the estimation of laparoscopic surgical capacity that do not reflect actual differences in performance [15].

Dull et al. investigated the resident impact on the surgical time of a single general surgeon in an ambulatory surgical setting. Six-hundred and twenty-five cases were analyzed. Operating time for each operation increased with the participation of residents. Umbilical hernia repairs were associated with a 19% time increase; laparoscopic cholecystectomies showed a 15% increase, and laparoscopic inguinal hernia repairs showed a 25% increase. The conclusion being that each surgeon must decide whether the increase in the operative duration caused by the participation of the residents is justified by the intangible benefits provided by their presence [16].

Zendejas et al. investigated whether the performance of surgeons measured by the basics of laparoscopic surgery (FLS) assessment program could predict their performance in a surgical trial; finding that FLS has the ability to evaluate surgeons prior to enrolling in a surgical trial. Although the best FLS scores predicted better operative performance and improved operative time, other outcome measures of the study showed no difference. These findings have significant implications for documenting the laparoscopic experience of surgeons in practice, and may allow a more adequate selection of surgeons to participate in clinical trials [17].

Tomaier et al. evaluated the transfer of skills between the platforms of minimally invasive surgical simulation among the participants. Forty medical students participated, of which 20 held a practice session in the robotic simulator and 20 a laparoscopic one. Two minimally

Module 1 or Dry Mode: Knowledge of laparoscopic instruments and intra-abdominal aggregated utility, objects transfer, rotor use, coordination of both hands, visual feld expansion, pattern cutting, traction and contraction, theory of knots, tips for simple intra-corporeal knots and according to utility by specialty, ergonomics correction, theory of monitors, cameras, laparoscopes and fberglass cables, perfect realization of the Roeder knot: by progressive tips (Figure 1).

Figure 1: (A-D) Module 1 or Dry mode; (A) Ambidexterity and coordination training (B) Hand independence and depth management. (C) Training in intracorporeal knot. (D) Trained intracorporeal knot without needle or point of support.

Profeł

Table 5 and Graph 3 Shows the results of the pre-qualification exam, where 32.7% scored between 142 and 200; 30.9% scored between 83 and 141.

Graph 6: