

# Training and Credentialing in Laparoscopic Surgery - The Need of the Day

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Laparoscopic surgery has come to stay, 'warts and all'. The year 1901 was an important one in the history of laparoscopy. George Kelling, a surgeon from Dresden used a 'coelioskope' to examine the abdominal cavity of dogs. He created pneumoperitoneum by using filtered air through sterile cotton. Over the next 90 years or so various surgeons used their skills and innovations towards advancements and perfection of laparoscopic procedures. With the advent of solid state camera in 1982, it was just a matter of time before the land mark, first laparoscopic cholecystectomy was performed by Dr Philippe Mouret of Lyons, France in 1987 [1]. It has caught the fancy of surgeons all over the world. However, this new and exciting branch of surgery has had its share of controversies. The proponents of laparoscopic surgery highlight the reduced post operative pain, shortened hospital stay and cosmetic acceptance. Those concerned with the drawbacks of laparoscopic surgery mainly refer to the iatrogenic injuries, particularly so, during the so called learning curve [2]. Notwithstanding the controversies, today, patients are flooding the hospitals with request for laparoscopic surgery, not only for gall bladder disease but also for other surgeries. The situation obviously calls for introspection.

First, the ethical aspect of this issue. Are we entitled to subject patients to a higher risk of complication during the early phase of learning to do laparoscopic procedures? This aspect assumes increasing importance as more and more complex surgical procedures are being carried out laparoscopically. Colectomy, splenectomy and fundoplication are some such procedures being reported from many centres [3,4]. It is not possible to justify the performance of such operations by those attending short term courses of training in laparoscopic surgery over weekends. At present there is no check on the previous surgical expertise of surgeons aspiring

to be laparoscopic surgeons.

New surgical procedures have been introduced at regular intervals in the evolution of modern surgery. Then why laparoscopic surgery be scrutinized so closely! Laparoscopy is the result of a quantum leap in technological advancement as opposed to the gradual progress that the surgeons have been used to. A laparoscopic surgeon needs to learn to operate with a two dimensional view of three dimensional situation. In addition these surgeons have to do without the all important tactile sensation, depriving him of all important depth perception. Laparoscopic manipulations require precise eye hand co-ordination, with awkwardly long and narrow instruments. Retraction is quite unlike that which surgeons customarily take for granted. Even simple knotting which most surgeons do, more or less subconsciously, have to learnt anew. All these factors predispose to an increased probability of complications such as bleeding and cautery injuries. Thus the criticism of the conservatives is not entirely a cry of sour grapes.

It is imperative, therefore that the reigns be held tight on this new and exciting surgical horse, lest it runs away to ignominy and oblivion. The surgical community owes it to the public and to itself. The relatively high incidence of biliary tract injuries reported in the first three years of laparoscopic cholecystectomy [5,6], led to a fall in the demand for the procedure. Such incidents have a negative effect on the entire surgical fraternity. Thus conscientious surgeons started to address the need for credentialing and granting of privileges to surgeons desirous of entering the laparoscopic arena [7,8].

If laparoscopic surgery is indeed to flourish in the coming years, it is mandatory that established surgeons alike get adequate training in the field. In addition the young surgical post graduates must be trained in the craft and skills of laparoscopic surgery in their formative years. Essentially training in laparoscopic surgery

involves three levels as outlined by Rau [9]. Atlases of laparoscopic anatomy and technique, lectures on various procedures from practising specialists in the field and watching of video recordings and/or attending workshops form the first level. The second stage of training is done on simulators. These devices help the budding laparoscopic surgeon to master eye-hand co-ordination, two dimensional dissection, mobilization etc. The third level of training is recommended to be done on animals or by assisting laparoscopic surgeons.

The subject of credentialing surgeons and residents in laparoscopic surgery has been dealt with comprehensively by the Society of American Gastrointestinal and Endoscopic Surgeons. Essentially the directives include the following:

- a. The individual must have an MS or equivalent degree.
- b. He must be competent in performance of the procedure by the open method.
- c. He should have experience in performing diagnostic laparoscopies.
- d. Surgeons and residents would require to undergo the three levels of training described earlier and participate as first assistant to a qualified laparoscopic surgeon.
- e. He must perform these procedures under direct supervision of an already privileged laparoscopic surgeon.

As we march ahead in the 21<sup>st</sup> century we must realize that laparoscopic surgery will occupy a prominent and dominant role. Structured training of surgeons and specialists alike will become mandatory. This can best be done by setting up credentialing committees for

supervising the training process [9,10]. With robotic laparoscopic surgery [11] knocking at our doors, the surgical community will do itself a lot of good by getting it's house in order as far as training in laparoscopic surgery for the future generation of surgeons is concerned.

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