The Learning Curve Of A Surgeon

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“I just mastered laparoscopic surgery through four holes, now they want me to do it through one?”

This comment, I heard on a shuttle ride to the airport following last year’s American Association of Gynecologic Laparoscopists (AAGL) meeting. The topic of discussion among the surgeon and her colleagues on the bus was single-port surgery, as the show we had all just attended had a large focus on new procedural techniques—single-port access (SPA), laparo-endoscopic single site surgery (LESS) and single-incision laparoscopic surgery (SILS).

I am reminded of this surgeon’s comment as I begin reading the book, *Complications: A Surgeon’s Notes on an Imperfect Science*, by Atul Gawande. Having just received the book yesterday, I am only in the beginning pages, but I’m already intrigued. My plan was to wait to finish the book before I shared my thoughts with you all. However, I can already tell this book is loaded with topics of discussion, so I thought I’d start a little early.

The topic for today: the continuous learning curve for surgeons and what it means for their patients.

At the beginning of the book, Dr. Gawande tells us about his father, a urological surgeon in practice for more than 25 years. In that time, he had to learn, mostly on this own, numerous procedures introduced after his residency training, including microsurgery, reverse vasectomies, nerve-sparing prostatectomies, and the list of

goes. He tells his son, “Three-quarters of what I do today I never learned in residency.”

The question is then, how do surgeons, particularly experienced surgeons, learn these new procedures without putting their patients at risk?

In the April issue of *Surgical Products*, an article on surgical simulation and training discusses a blend of different approaches to helping surgeons develop and refine surgical skills, including virtual reality simulators, tabletop trainers, cadavers and animal models, even video games.

While all of these tools are helpful for surgeons to practice their skills before entering the OR, it’s arguable that the real practice for any surgeon comes with experience inside the surgical suite. A surgeon is trained on a procedure once he/she has not only mastered the technique, but also learned to identify and address problems in that procedure if something goes wrong. Since every patient and every procedure cannot be identical, this learning experience can only really be found in the OR.

In the March issue of *Surgical Products*, Dr. Paul Curcillo advises surgeons learning single port access to use a step-by-step approach. Start by decreasing the number of holes used in a procedure from four to three, then three to two and progress to performing surgery through a single port. If something starts to go wrong, he says, put in another hole. His approach is all about giving the new technique a try in the OR and being ready to handle it if it doesn’t go as planned.

As new techniques develop, surgeons have no choice but to adapt and learn them. If they don’t, they risk becoming obsolete. By not providing the most up-to-date treatments, they may be denying their patients the best care possible. However, the learning process associated with these new procedures and techniques comes with an inherent risk, particularly to those first few patients.

Dr. Gawande goes on to discuss how surgeons in Britain switched procedures to treat a severe heart defect in babies. When the surgeons first began doing the procedure on the babies, they had a 25 percent death rate, compared to a six percent rate with the old procedure. Only with time, Dr. Gawande writes, did they master the technique. In the end, the progress made with the new technique is a remarkable improvement for patients. But, it didn’t come without its own set of risks associated with the learning process.

In all likelihood, the majority of surgeons attending AAGL to learn about single-port surgery went home to start performing this new procedure on their own patients. With time, and numerous experiences in the OR, they will master the new technique. And, the probability is high that as soon as these surgeons do master the technique, something even better will come along, and the learning curve will start all over again.

Learning for a surgeon is a never-ending process. The true lesson is in the OR, and with it comes an inevitable risk. Although the risks associated with learning and

progressing in surgery may be great, the benefits are even greater.

Stay tuned for more on *Complications: A Surgeon's Notes on an Imperfect Science*, by Atul Gawande.

Have you read Atul Gawande's book? Have you experienced the continuous surgical learning curve? E-mail me at amanda.mcgowan@advantagemedia.com [1]

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