SAGES guidelines for laparoscopic ventral hernia repair

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The Society of the American Gastrointestinal and Endoscopic Surgeons has a 35-year history of being the working-surgeons' resource for excellence in surgical care. While having name recognition for its splashy demonstration of the most innovative and advanced surgical techniques in the world, SAGES has also dedicated itself, its resources, and its volunteer manpower to go back and periodically reassess the procedures it helped to provide to the mainstream of surgery. While not as flashy as displaying the latest multimedia endo-laparo-robotic operation, these systematic reviews of what are now common surgical procedures provide a reference for surgeons at the point of care for patients. Indeed, this review of what we have learned in laparoscopic ventral hernia repair from its inception in 1993 is certainly more important than the newest of the newfangled operations that is yet to be vetted by the surgical community. Importantly, these analyses are a tremendous amount of work by the authors, and they should be commended for their contributions to this educational resource that practicing surgeons might use within the context of their respective practices.

Guidelines for surgical practice are, in general, evidence-based tools that help diagnose disease or physical conditions, provide considerations of surgical care, aid in patient education, and provide recommendations for surgical decisions while not reflecting the standards of care as defined by SAGES or the surgical community as a whole. The committee, a group of practicing surgeons with

varying levels of expertise in laparoscopic ventral hernia repair, has presented advice based on the graded evidence available in the literature. Grading has been done on a standard 4-level scheme. When evidence for recommendations was limited, the committee provided "expert opinion" or collegial suggestions. Grading of the evidence and the opinions offered, however, are to be accepted with the full understanding that the important contribution of surgical judgment at the time of care must be used by individual surgeons to treat individual patients. To this point, documents such as this one are meant to guide and not dictate surgical practice.

My read of this document reinforces my consideration of the views I state above. The work that has gone into this amalgamation of the available literature is remarkable. The source review is extraordinary, with 185 references applied to the decision tree, or decision "forest," which this guideline represents. The sheer number of articles scrutinized by the committee must have been massive. The authors have beautifully collated the information into a readable, workable document that walks physicians through the spectrum of laparoscopic ventral hernia repair.

However, from the prospective of a surgical scientist with a dedicated interest in hernia repair, one disappointing and glaring theme is obvious when all of this information is presented at once: There is an astonishing amount of evidence that is yet to be generated to fulfill a truly scientific, clinically based guide to laparoscopic ventral hernia repair. Ventral hernia repair is one of the most common operations performed in the world. It is the fifth most common procedure documented by surgeons applying for their Fellow of the American College of Surgeon credentials. Despite this, and much to our failure as researchers, we do not know many of the basic physiologic and engineering considerations to perform a dependable, repeatable hernia

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repair. If we do not reliably know the strength of the abdominal wall, the force generated in various levels of physical activity, the roles that body mass index or abdominal girth play in pressure generation within the abdomen, the impact of the size of an abdominal wall defect, the real and long-lasting strength of tissue in-growth of mesh, in general, and the various meshes in particular against an intact peritoneum, the tenacity of a patient's connective tissue, the long-term impact of mesh visceral adhesion, etc., and how any and all of these blend together to impact recurrence, quality of life, and complications, then we must admit that how much is currently known about ventral hernia repair pales in comparison with how much there is yet to understand. Truly, with the evidence that we have, how do we know how strong a mesh needs to be? How many sutures or tacks do we apply? Should fixation be with permanent or absorbable materials? Where do we place fixation? What mesh do we choose? Who is most appropriate for a laparoscopic approach? How much overlap is appropriate and what role do the defect size and patient characteristics play in this decision? What physical activities should be limited after surgery and for how long? Where we are missing true fact in hernia repair, these guidelines provide advice assimilated by experts. However, one must recognize that the more experts you ask, the more

opinions there would be. Of course, these clinical considerations are based on our individual training, experience, lack of experience, patient follow-up, and bias. Indeed, having performed more than 1000 laparoscopic ventral hernia repairs and serving as a tertiary referral surgeon for hernia repair failures, truly, my opinions differ in several of the recommendations opined by the group that wrote the guidelines. One expectation (or hope) I have from the committee's outstanding work in herding all of this information together is that, through its demonstration of the missing science in this field, surgeons, especially young, academic surgeons, will pursue these obvious, clinically based, important research ideas and will impact patient care around the world.

The goal of the SAGES Guideline Committee was to provide valuable information to practicing surgeons. They have done so and should, once again, be commended for their generous time and labor commitment to this overwhelming task.

Compliance with ethical standards

Disclosures Dr. Heniford has no conflicts of interest or financial ties to disclose.