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Jury is Out: Robotic or Laparoscopic or Open Surgery

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Dr. Kudsi and his colleagues have presented their single surgeon experience with 106 consecutive robotic repair of ventral hernia over a 3 year period. They have discussed the superiority of minimally invasive ventral hernia repair compared to open repair and its limited use currently. They have highlighted the advantages of robotic surgery for this disease. Robotic surgery provides better range of motion with wristed instruments, 3D imaging, and ergonomics that enable work at difficult angles.

I want to complement the authors for their large study and comprehensive data analysis. I believe their study highlights multiple points in the advancement of minimally invasive ventral hernia repair that has improved results and enhance patient satisfaction. First, the underlay techniques provides better results with a lower recurrence rate. Second, closure of the fascia provides better functional recovery and may reduce recurrence rates. Third, closure of the peritoneum protects the GI tract from the mesh repair. While standard laparoscopic hernia repair use some of these steps the authors have shown that robotic surgery provide a clear advantage while incorporating all of these steps. Finally, the authors point out their own evolution in robotic repair techniques to incorporate more advanced mesh, suture techniques to close the fascial defect, and peritoneal closure.

There are also some important shortcomings of this study. The authors have a very short follow up of 6 months which can not truly measure recurrence rates for robotic hernia repair. Two patients developed recurrence during the follow up period. Another point not discussed in this paper is patient related factors in recurrence rates. Smoking, obesity, recurrent repair, and immune suppressed patients are at a much higher risk of recurrence no matter the techniques employed. The surgical techniques changed throughout the study period and outcomes may have some confounding.