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## Hysterectomy Approaches: Adverse Events Differ

BY DAMIAN MCNAMARA

FROM THE AAGL ANNUAL MEETING

HOLLYWOOD, FLA. – Women who undergo hysterectomy via one of three surgical approaches experience similar outcomes, with one caveat, according to findings of a retrospective study.

The caveat is that the 94 women who underwent robotic-assisted laparo-

scopic hysterectomy experienced unique adverse events: four vaginal cuff infections and two vaginal cuff separations. These unfavorable outcomes were not experienced by the 97 women who had total abdominal hysterectomy or another 96 who underwent vaginal hysterectomy.

The cuff separations each occurred 2-3 weeks postoperatively and the women presented with vaginal bleeding. Neither

case was associated with early postoperative sexual intercourse.

"Excluding our vaginal cuff complications, we believe robotic hysterectomy offers a safe alternative to the abdominal route," Dr. Corey A. Wagner said at the meeting. Prevention of vaginal cuff complications "would reduce this major complication rate to the same level seen with vaginal hysterectomy [from 10% down to 3%]."

"At the initiation of our study, robotic hysterectomy had been directly compared with laparoscopic hysterectomy, and had been shown to allow for similar outcomes. However, the purpose of the robotic hysterectomy is not to replace the laparoscopic but rather to replace the abdominal group," said Dr. Wagner, a gynecologist at St. Elizabeth Medical Center in Utica, N.Y.

So Dr. Wagner and his associates compared all three approaches. Determination of the safety of robotic hysterectomy as an alternative to the abdominal approach was the primary aim, said Dr. Wagner, who conducted the study while affiliated with St. John's Mercy Hospital, a community hospital in St. Louis, Mo.

The primary end point was major complications, which included readmission to the hospital, unexpected return to the operating room, or unanticipated transfusion. The rates for all major complications did not differ significantly (9.6% of the robotic group, 8.2% of the abdominal group, and 3.1% of the vaginal hysterectomy patients). Similar trends were seen for minor complications, Dr. Wagner said. In contrast, the differences in rates for any complication were significant (16% in the robotic, 14% in the abdominal, and 6% in the vaginal hysterectomy groups). Records were reviewed a minimum of 160 days post surgery.

Procedure time was longer in the robotic surgery group at a mean 168 minutes, compared with 99 minutes in the abdominal surgery patients and 69 minutes for the vaginal hysterectomy surgeries. Estimated blood loss was significantly lower in the robotic group at 101 mL, compared with 187 mL in the abdominal surgery group and 157 mL in the vaginal hysterectomy cohort.

Length of stay was a mean 1.1 days in the robotic cohort, 2.4 in the abdominal route patients, and 1.2 days among the vaginal surgery patients. Hospital stay was significantly longer in the abdominal surgery group, compared with the other two. Financial differences among the robotic, abdominal, and vaginal approaches to hysterectomy were not assessed in this study, Dr. Wagner said when contacted for additional information.

Further evaluation of vaginal cuff complications is warranted. Specifically, Dr. Wagner would like to determine the role, if any, of use of barbed sutures. Of the 28 cases that involved barbed sutures, 4 (14%) developed a cuff complication, compared with 2 of 63 (3%) cases that involved conventional sutures. Medical risk factors that patients bring with them to the operating room, the use of electrosurgery for colpotomies (unique to the robotic cohort), and the impact of robotic surgeon experience on complication rates are other areas of potential future study, he added.

Dr. Wagner said that he and his coauthors had no relevant financial disclosures.

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Dr. Charles E. Miller, clinical associate professor at the University of Illinois at Chicago, present-elect of the International Society for Gynecologic Endoscopy (www.isge.org), and a past president of the AAGL (www.aagl.org), is medical editor of the Master Class in Gynecologic Surgery column. He is a reproductive endocrinologist and minimally invasive gynecologic surgeon in private practice in Naperville, Ill., and Schaumburg, Ill.; and the director of minimally invasive gynecologic surgery at Advocate Lutheran General Hospital, Park Ridge, Ill.



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