

Benign GYN Surgical Outcomes in an Academic Teaching Hospital: Robotic Assisted Laparoscopic Hysterectomy versus Conventional Laparoscopic Hysterectomy

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Objective: Worldwide robotic procedures are gaining acceptance, and it has been well documented that the daVinci surgical system used for hysterectomies is a safe, feasible technique with similar outcomes when compared with conventional laparoscopic hysterectomies. Information regarding the utilization of conventional and robotic laparoscopic hysterectomies, patient characteristics, surgeon characteristics and surgical outcomes at our hospital is important to our quality of patient care and resident education. The objective of this study was to compare patient selection, surgeon experience, intra-operative and post-operative parameters of conventional versus robotic-assisted (daVinci) laparoscopic hysterectomy.

Methods: We conducted a retrospective chart review of all total laparoscopic hysterectomies (TLH; conventional and robotic) performed for benign indications at Mission Hospital in Asheville, NC, in 2012. One hundred and thirteen cases were identified through the Mission EHR procedure schedules; the surgical techniques were verified via the operative reports. Cohorts were compared using Chi square analysis for categorical variables and t-test or Mann-Whitney U for continuous variables.

Results: Of the 113 cases identified, 100 met criteria for analysis: 51 in the robotic TLH (RA-TLH) group and 49 in the conventional TLH (C-TLH) group. Both groups were similar in BMI, previous surgeries, indications for surgery, and concurrent surgeries. Patients undergoing RA-TLH were older and had larger uteri with fibroids. There were significantly more private community doctors working alone on RA-TLH (78.4%) than on C-TLH (40.8%), and significantly more faculty and residents performing C-TLH (46.9%) than RA-TLH (11.8%). Operative time was significantly longer for RA-TLH (181.2±48.1) than C-TLH (157.0±50.1). There were no significant differences in post-operative pain control or length of hospital stay. Of the 51 patients with RA-TLH, there was 1 ileus and 1 post-op pelvic infection. Of the 49 patients with C-TLH, there was 1 post-op pelvic infection, 1 bowel perforation, and 3 patients were seen in the ER for pain.

Conclusions: RA-TLH and C-TLH compared well on post-operative outcomes and complications. The RA-TLH surgeries, performed most often by private physicians, were longer. However, they were performed on women with larger uteri with fibroids. The cost effectiveness of these surgeries needs to be examined. The percentage of teaching cases at the hospital should be increased.

Keywords: Robotics, Laparoscopy, Hysterectomy