IS-4  What is the Learning Curve for Single-port Access Laparoscopic-assisted Vaginal Hysterectomy?

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Objective: Single-port access (SPA) surgery is a rapidly advancing technique in laparoscopic surgery. Currently, there is limited evidence on the learning curve and complications of performing SPA-laparoscopic-assisted vaginal hysterectomies (LAVHs). Methods: One hundred patients who initially planned to undergo a SPA-LAVH for benign indications between May 2008 and October 2009 were enrolled. All operative data were prospectively collected. Patients were arranged in order based on the date of surgery and the outcomes were compared between quartiles (cases 1-25, 26-50, 51-75, and 76-100). Proficiency was defined as the point at which the slope of the curve becomes less steep for operative time. Plateau was defined as the point at which the slope is zero. A comparison of the data on a quartile was performed. Locally weighted regression generated smoothed lines that represent operative time over the sequence of the operations. Results: Most SPA-LAVHs were successful, but additional ports were needed in 5 patients because of pelvic adhesions (n=3) and large uterine size (n=2). There were 3 cases with post-operative complications (hemorrhage, 1; vesicovaginal fistula, 1; and cuff abscess, 1), who were managed without sequelae. Without increased operative morbidities, the operative time decreased from a median of 1330 minutes (interquartile range, 107.5-162.5 minutes) in the first quartile to a median of 1000 minutes (interquartile range, 85.0-117.5 minutes) for the last quartile (p=0.001). The proficiency and plateau were determined after approximately 25 and 75 cases, respectively. Conclusions: The SPA-LAVH was safe, effective, and reproducible after training, and with the current technique, had a low rate of complications.

IS-5  Single port access laparoscopic-assisted vaginal hysterectomy for carcinoma in situ of uterine cervix

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Background and objectives: We investigated the feasibility of single port access laparoscopic-assisted vaginal hysterectomy (SPA-LAVH) in patients with carcinoma in situ (CIS) of uterine cervix, whose uterus is not enlarged hence it is easy to handle compared to uterine fibroid and adenomyosis. Methods and Procedures: Through a 3 cm vertical incision within umbilicus, Alexis® wound protector was inserted. A surgical glove wrapped the wound retractor and three 5 mm trochars were inserted into the fingers of the glove for a 5 mm laparoscope, Sonosurge® ultrasonic cutter (Olympus, Japan) and a forceps. LAVH was performed in the same manner with conventional three port LAVH (TP-LAVH) and uterine manipulator was extensively used like one of laparoscopic forceps. We performed 15 cases of SPA-LAVH between April 2009 and January 2010. We also enrolled 33 women with CIS of cervix who received TP-LAVH between March 2006 and April 2009 as a control group. We compared demographic factors and outcomes of surgery between two groups. Results: There were no significant difference between SPA-LAVH group and TP-LAVH group in age (mean 45.40 ± 9.55 vs. 46.75 ± 10.23 years), body mass index (mean 24.52 ± 4.19 vs. 24.08 ± 3.35), parity (mean 2.40 ± 1.05 vs. 2.45 ± 1.14), previous surgery (mean 0.33 ± 0.61 times vs. 0.36 ± 0.96 times), hemoglobin change (mean 1.51 ± 0.61 g/dl vs. 1.66 ± 0.96 g/dl) and complications (0 vs. 2). SPA-LAVH group took a longer time during surgery (103.80 ± 13.3 minutes vs. 91.21 ± 27.69 minutes; p = 0.007) and stayed shorter in hospital (2.66 ± 0.72 days vs. 3.27 ± 0.94 days; p = 0.029). Conclusions: SPA-LAVH is feasible for the patients with CIS of uterine cervix.

IS-6  Single-port total laparoscopic hysterectomy using Kim's Posterior-to-Anterior Round Method

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Objective: To introduce a novel method, Kim's Posterior-to-Anterior (PA) Round Method, and to evaluate the possibility and feasibility of single-port total laparoscopic hysterectomy (TLH) using this method. Methods: Seventy-six patients who underwent single-port TLH between August 2008 and December 2009. All cases of single-port TLH using Kim's PA Round Method were performed by a single surgeon (Y-W Kim). During the vaginal fornix incision, we performed Kim's PA Round Method, named after our surgeon. In this study, we executed single-port TLH using conventional rigid straight laparoscopic instruments and we closed the vaginal cuffs laparoscopically, in all cases. Operative time, uterine weight, decrease of hemoglobin, hospital stay, intra- and post-operative complications. Results: The patient's mean age was 45.3 ± 6.4 years (range, 35-56). Leiomyoma and adenomyosis were the more common indications among benign gynaecological problems. The mean uterine weight was 231.3 ± 126.4 grams (range, 65-680). The mean operative time was 113.8 ± 27.6 minutes (range, 55-185). The mean post-operative hospital stay was 2.6 ± 0.7 days (range, 2-5) and the mean decrease of post-operative hemoglobin values was 1.3 ± 0.7 g/dL (range, 0.1-3.8). Neither bowel nor urinary tract injury occurred during the operation. Conclusion: Kim's PA Round Method is safe and feasible in single-port TLH.