ISO-4-3 A Matched–Case Comparison Assessing the Role of Lymphadenectomy in Patients with Preoperative Low-Risk Endometrial Cancer

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[Objective] The aim of this study was to compare long-term survival outcomes between no lymphadenectomy (no LND) and lymphadenectomy (LND) in patients with low-risk endometrial cancer based on preoperative assessments. [Methods] We identified low-risk patients based on preoperative assessments who were treated at a single institution between 1995 and 2009. Eligibility criteria were preoperative, histology confirmed grade 1 or 2 endometrioid-type cancer, and a preoperative pelvic magnetic resonance imaging (MRI) scan showing myometrial invasion ≤50%, absence of enlarged lymph nodes, and no cancer extension beyond the uterus. We matched patients with low-risk endometrial cancer with known risk factors for lymph node metastasis or recurrence who underwent no LND (group 1) or LND (group 2). The survival analysis was performed using the Kaplan-Meier method and compared using the log-rank test. [Results] We included 404 patients with low-risk endometrial cancer. 82 patients without LND were matched to 82 patients with LND. During a median follow-up of 56 months (range, 2-179 months), recurrent endometrial cancer was diagnosed in 2 (2.4%) patients in group 1 and 4 (4.9%) patients in group 2. Among patients with recurrence, five had distant recurrences with or without locoregional/lymphogenous recurrence. There was no significant difference in disease-free survival (DFS) and overall survival (OS) between the two groups (P = 0.396 and P = 0.289, respectively). [Conclusions] Our results suggest that no LND did not worsen the DFS or OS in patients with low-risk endometrial cancer based on preoperative assessments.

ISO-4-4 Learning curve analysis and training of robot-assisted laparoscopy for cervical cancer: initial experience at a single institution

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[Objective] The aim of this study was to evaluate the learning curve and perioperative outcomes of robot-assisted laparoscopic surgery for patients with cervical cancer using cumulative summation (CUSUM) analysis. [Methods] A series of 65 consecutive robot-assisted laparoscopic radical hysterectomies with bilateral pelvic lymph node dissection for early stage cervical cancer were performed between May 2006 and May 2011. Demographic data and various perioperative parameters including docking time (DT), console time (CT) and total operative time were reviewed from the prospectively collected database. The learning curve was evaluated using CUSUM methods. [Results] The mean operative time was 190 min (range, 117-350 min). Two unique phases of the learning curve were derived using CUSUM analysis: phase 1 (the initial learning curve of 28 cases), and phase 2 (the mastery phase of subsequent cases in which more challenging cases were managed). Docking and console times were significantly decreased after the first 28 cases compared with latter cases (5 min vs. 4 min for DT, 160 min vs. 134 min for CT; P<0.0006 and P = 0.0004, respectively). However, the decrease in docking time was not substantial compared to that of console time. The trend in docking time was dependent on bedside fellow rotation. No conversion to laparotomy occurred. There was no difference in median blood loss, lymph node retrieval, length of hospital stay, and perioperative complications among the two phases. [Conclusions] The data suggest that the proficiency for robot-assisted surgery for cervical cancer in operative time can be achieved after 28 cases. The two phases identified by CUSUM analysis show significant improvement after surgical competency. Detailed analysis of each steps of robotic surgery is crucial for monitoring learning experience for the surgeon as well as for monitoring bedside assistant performance.

ISO-4-5 Identification of HPV16 L1-derived B cell epitopes in humans vaccinated with HPV16 L1 virus–like particle

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[Objective] Prophylactic vaccination against human papillomavirus (HPV) types 16 and 18 might prevent development of up to 70% of cervical cancer. HPV 16/18 L1 virus–like particles (HPV–VLPs), which induce neutralizing antibody responses, have been used as a prophylactic vaccine with great success. Although the preventive effect of the HPV–VLPs vaccine has been reported to last up to 8.4 years, the durability is unclear at the present time. Previously, we reported new HPV16 L1–derived B cell epitopes in mice. In the current study, to better understand immune responses to the vaccinated HPV–VLPs, we investigated humoral immune response to HPV–VLPs in humans. [Methods] Serum IgG titers against 10 different HPV16 L1–derived peptides that contain human leukocyte antigen (HLA)–class I A–2, A–24 from individuals immunized with HPV–VLPs were analyzed by multiplexed bead–based Luminex assay. This study was conducted after the approval by Institutional Review Board. [Results] Two 20-mer peptides, which shared the 13-amino acid sequence containing HLA–A2 and –A24 binding motif were identified as an immunogenic epitope. Interestingly, one of the B cell epitopes identified in humans was also immunogenic in mice. [Conclusions] The epitope identified in the present study might be an appropriate candidate for monitoring immune responses to HPV–VLP after vaccination in both animal model and humans.