Clinical Outcomes of Robotic-assisted Hysterectomy in Comparison to Laparoscopic Hysterectomy for Early-stage Endometrial Cancer in Fukuoka University Hospital

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Abstract

Objective: This study aimed to evaluate the clinical outcomes of robot-assisted hysterectomy（RAH）using the daVinci Xi surgical system in comparison to total laparoscopic hysterectomy（TLH）for early-stage endometrial cancer performed during the same period.

Methods: This retrospective study compared 9 patients who underwent RAH and 10 patients who underwent TLH from October 2018 to May 2021. Hysterectomy was performed for all patients preoperatively diagnosed with stage IA endometrial cancer. Various surgical parameters, including the total operative time, hysterectomy time, intraoperative blood loss, operative complications and short-term oncological outcomes were reviewed from the medical records.

Results: There was no significant difference between the two groups in terms of age and body mass index. The median perioperative parameters in the RAH and TLH groups, respectively, were as follows: total operative time, 343 minutes［range, 184-443］vs. 277 minutes［240-373］（p=0.133）; hysterectomy time, 175 minutes［106-257］vs. 131 minutes［85-212］（p=0.352）; intraoperative blood loss, 70 g［1-672］and 54 g［1-570］（p=0.458）; perioperative complication rates, 11.1% and 10.0%（p=1.00）. No patients required transfusion or conversion to laparotomy in either group. There was no significant difference in disease-free survival or the recurrence rates of the RAH and TLH groups.

Conclusion: RAH was safely introduced in our hospital and was associated with almost equivalent perioperative outcomes to TLH. In the future, it will be necessary to study the long-term oncological prognosis of patients with endometrial cancer after robot-assisted surgery.

Key words: robotic surgery, laparoscopic surgery, endometrial cancer, hysterectomy