

Contents lists available at [ScienceDirect](http://www.sciencedirect.com)

Gynecology and Minimally Invasive Therapy

journal homepage: www.e-gmit.com

Original article

Surgical and oncological outcome of laparoscopic surgery, compared to laparotomy, for Japanese patients with endometrial cancer

Yasuhisa Terao^{*}, Mari Kitade, Soshi Kusunoki, Kazunari Fujino, Takafumi Ujihira, Miki Kimura, Hiroshi Kaneda, Satoru Takeda

Department of Obstetrics and Gynecology, Juntendo University Faculty of Medicine, Tokyo, Japan

ARTICLE INFO

Article history:

Received 28 December 2015

Received in revised form

25 January 2016

Accepted 26 January 2016

Available online 3 March 2016

Keywords:

endometrial cancer

laparoscopic lymphadenectomy

laparoscopic surgery

postoperative complication

ABSTRACT

Study objective: The purpose of this study was to elucidate the surgical and oncological outcomes after laparoscopic surgery for endometrial cancer at our hospital.

Materials and methods: Surgical outcomes, complications rates, 2-year survival rates, and recurrence rates were evaluated in 44 patients who underwent total laparoscopic hysterectomy (TLH) and 57 patients who underwent total abdominal hysterectomy (TAH) for endometrial cancer at our hospital between August 2010 and November 2013.

Results: There was no significant difference between the two groups with respect to age or body mass index. More than 80% of patients in both groups had stage I cancer. In the TLH group, the histological types were endometrioid adenocarcinoma in 42 of 44 patients, carcinosarcoma in one patient, and serous adenocarcinoma in one patient. Operative times were significantly longer in the TLH group, but patients in this group had less intraoperative blood loss, shorter hospital stays, and reduced levels of postoperative pain, compared to patients in the TAH group. There were four cases of postoperative infection and one case of vessel injury in the TLH group. No patient in this group required blood transfusion or conversion to open surgery. There were recurrences in two (4.7%) patients in the TLH group (i.e., carcinosarcoma and serous adenocarcinoma) and in five (8.6%) patients in the TAH group.

Conclusion: Laparoscopic surgery is safe and feasible for patients with early-stage endometrial cancer. However, patients with carcinosarcoma and other histologic types of endometrioid adenocarcinoma require special attention because of the high risk of recurrence and poor prognosis.

Copyright © 2016, The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

In recent years, the incidence of endometrial cancer has been increasing in Japan. In 1990, 3574 cases were reported; in 2000, the number had increased to 5609 cases; and in 2011, 14,763 new cases were reported.¹ Surgery is the initial treatment in 95% of all new cases. Radiation therapy or chemotherapy is recommended for patients who are not surgical candidates because of advanced age, comorbidities, or stage IVB cancer with peritoneal or distant metastasis.² The standard operating procedures for endometrial

cancer are hysterectomy, bilateral salpingo-oophorectomy, and lymphadenectomy. Thus, the main treatment option for patients with endometrial cancer is surgery. However, laparoscopic surgery for endometrial cancer was not covered by insurance in Japan until March 2014; before that point, an open abdominal approach was the standard technique.

In 2005, a randomized controlled trial reported the analysis of survival after laparoscopy versus laparotomy in women with endometrial cancer.³ In 2009, the results of three other randomized controlled trials were also reported.^{4–6} In 2010, the results of two more randomized controlled trials were also reported.^{7,8} In all trials, intraoperative bleeding was significantly less and the length of hospitalization was significantly shorter in laparoscopic surgery than in abdominal surgery. There was no difference in organ injury or intraoperative complications. Postoperative complications such as ileus were significantly fewer in laparoscopic surgery. There was no difference in the recurrence rate. However, no difference in

Conflicts of interest: The authors have no conflicts of interest to declare relevant to this article.

^{*} Corresponding author. Department of Obstetrics and Gynecology, Juntendo University Faculty of Medicine, 2-1-1 Hongo, Bunkyo, Tokyo 113-8421, Japan.

E-mail address: yterao@juntendo.ac.jp (Y. Terao).

<http://dx.doi.org/10.1016/j.gmit.2016.01.006>

2213–3070/Copyright © 2016, The Asia-Pacific Association for Gynecologic Endoscopy and Minimally Invasive Therapy. Published by Elsevier Taiwan LLC. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

recurrence rate was found, although it should be noted that the majority of patients (77.5 to 93.2%) in all of the trials had endometrioid adenocarcinomas, which have inherently lower recurrence rates among early-stage endometrial cancers.

Based on the results of these randomized controlled trials, insurance coverage has been extended to laparoscopic surgery for endometrial cancer since April 2014 in Japan. Therefore, the number of cases in Japan is expected to rise in the future. However, the number of cases in Japan is small; therefore, the complication rates, surgical outcomes, and oncological outcomes after laparoscopic surgery for endometrial cancer are unknown. The surgical outcomes, complications rates, 2-year survival rates, and recurrence were retrospectively evaluated for laparoscopic surgeries performed for endometrial cancer at our hospital.

Materials and Methods

This study was approved by the in-hospital ethics committee. Fifty-three laparoscopic surgeries for endometrial cancer were performed from August 2010 to November 2013. Forty-four patients (i.e., the TLH group) had laparoscopic hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy, and nine patients had laparoscopic hysterectomy and bilateral salpingo-oophorectomy. The main eligibility criterion for laparoscopic surgery for endometrial cancer at our hospital is International Federation of Gynecology and Obstetrics (FIGO) 2008 stage IA grades 1 and 2 endometrioid adenocarcinoma diagnosed by endometrial aspiration or curettage before major surgery. Patients who met the eligibility criteria were offered laparoscopic surgery. Pelvic lymphadenectomy was recommended for all patients with endometrioid adenocarcinoma; however, not all patients consented. Pelvic magnetic resonance imaging (MRI) and positron emission tomography–computed tomography were performed preoperatively in all patients to check for muscle and cervical invasion and lymph node or ovarian metastasis or other cancers. If the MRI findings suggested stage IB disease, then TLH was contraindicated and we performed open surgery with pelvic lymphadenectomy. The exclusion criteria were patients who could not be placed in a lithotomy position or patients who had a large uterine fibroid that would have been difficult to remove from the vagina. Patients who had other than FIGO stage IA disease and endometrioid adenocarcinoma grades 1 or 2 were treated by adjuvant chemotherapy.

In the present study, surgical outcomes, complications, recurrence, death, length of hospitalization, pain score (based on the visual analog scale), and hemoglobin level on postoperative Day 1, C-reactive protein (CRP) on postoperative Day 3, and 2-year survival rates between the TLH group and the 57 patients (i.e., the TAH group) in whom open abdominal surgery for endometrial cancer (e.g., hysterectomy, bilateral salpingo-oophorectomy, and pelvic lymphadenectomy) were compared during the same period.

Laparoscopic surgical technique

Laparoscopic surgery for endometrial cancer was performed, as follows: intermittent pneumatic compression was applied to the lower extremities to prevent thrombosis. Prophylactic antibiotics were administered before the beginning of the surgery. After general anesthesia was induced, the patient was placed in the lithotomy position with the operator standing on the left side of the patient. After carbon dioxide insufflation of the abdominal cavity, an 11-mm camera trocar was placed at the umbilical region, followed by the placement of bilateral 5-mm trocars at 3 cm inside the right and left anterior superior iliac spines, a 12-mm trocar at the left upper quadrant, and a 5-mm

trocar at the right upper quadrant. A 10-mm 30° laparoscope was used. No uterine manipulator was used. After the laparoscopic survey of the abdominal cavity, peritoneal cytology or a washing cytology was collected. After sealing both oviducts, the round ligament was sealed and divided, and the broad ligament of the uterus was opened. After identifying the ureter at the crossing of the uterine artery, the uterine artery was skeletonized, ligated, and divided. The infundibulopelvic ligament was ligated and divided. The uterosacral ligament was sealed and divided. After the preparation of the bladder off the vagina, the cardinal ligament was sutured and ligated and divided. A Vagi-Pipe (Hakko Medical, Nagano, Japan) was inserted to localize the vaginal vault, and the vaginal wall was incised with an electric scalpel. The uterus was placed in a EZ-Purse (Hakko Medical) and removed through the vagina. The vaginal stump was washed with saline and sutured. In patients who received pelvic lymphadenectomy, both lateral umbilical ligaments were lifted toward the abdomen to ensure a sufficient field of view. The right and left common iliac, external and internal iliac, and obturator lymph nodes were resected using sterile probe covers and removed. An absorbable adhesion barrier (Gynecare Interceed; Ethicon, Somerville, NJ, USA) was placed over the peritoneum. A drain was inserted through the left port. All laparoscopic surgeries were performed by a laparoscopist and gynecologic oncologist team. The same team performed all laparoscopic surgeries that were included in this study.

Statistical analysis

Statistical analysis was performed using GraphPad Prism, version 6.0 for Windows (GraphPad Software, Inc., San Diego, CA, USA). The Student *t* test was used to analyze the results. All calculated *p* values were two-sided and *p* < 0.05 was considered statistically significant. The disease-free and overall survival rates were calculated by the Kaplan–Meier method. Differences between survival curves were analyzed using the log-rank test and *p* < 0.05 was considered statistically significant.

Results

Laparoscopic hysterectomy, bilateral salpingo-oophorectomy, and lymphadenectomy were performed in 44 patients (i.e., the TLH group), and laparoscopic hysterectomy and bilateral salpingo-oophorectomy were performed in nine patients. Fifty-seven patients (i.e., TAH group) received abdominal hysterectomy, bilateral salpingo-oophorectomy, and lymphadenectomy during the same period.

The median age of the TLH group was 56 years (range, 39–78 years), and the median body mass index (BMI) value was 23.0 kg/m² (range, 17.2–37.3 kg/m²). The median age of the TAH group was 56 years (range, 31–80 years), and the median BMI of the TAH group was 22.5 kg/m² (range, 16.9–40.5 kg/m²). Therefore, no differences were observed between the TLH and TAH groups (Table 1). In the TLH group, the postoperative histological diagnosis for all patients was endometrioid adenocarcinoma, except for one patient with carcinosarcoma and one patient with serous adenocarcinoma. Eighty-five percent or more of both groups had FIGO stage I cancer. Patients with other than FIGO stage IA disease or endometrioid adenocarcinoma grades 1 or 2 were treated with chemotherapy. Nine (20.5%) patients in the TLH group and 18 (31.6%) patients in the TAH group also received chemotherapy (i.e., paclitaxel + carboplatin, or paclitaxel + epirubicin + carboplatin).

The TLH group had significantly longer operative times than the TAH group (310.1 ± 67.1 minutes vs. 237.1 ± 67.6 minutes, *p* < 0.05; Table 2). However, the TLH group had significantly less

Download English Version:

<https://daneshyari.com/en/article/3951842>

Download Persian Version:

<https://daneshyari.com/article/3951842>

[Daneshyari.com](https://daneshyari.com)