Improved Quality of Life with Laparoscopic Treatment in Early-Stage Endometrial Cancer


Study Overview

Objective. To compare quality of life (QOL) in women with early-stage endometrial cancer treated with laparoscopic or laparotomic surgery.

Design. Prospective randomized controlled trial.

Setting and participants. 84 women with clinical stage I endometrial cancer were enrolled and randomized to either a laparoscopic or laparotomic approach to surgical treatment. 40 additional women were matched demographically and were enrolled as controls. Each treatment group underwent total abdominal hysterectomy (vaginal-assisted in the laparoscopic group), bilateral salpingo-oophorectomy, pelvic lymphadenectomy, peritoneal washing, and intraperitoneal inspection with biopsy of suspicious lesions. All surgical procedures were performed by the same surgeon. Postoperative pain was evaluated using the Visual Analogue Scale, and pain severity was expressed as a score from 0 to 10. Patients were assessed every 3 hours for the first 12 hours post-surgery, at 24 and 48 hours postsurgery, and before discharge. Data on postoperative complications, duration of hospital stay, and time needed to return to full activity and/or work were also evaluated.

Main outcome measures. QOL (the primary endpoint) was evaluated before and after surgery and in controls by using the SF-36 Health Survey. Climacteric symptoms were evaluated similarly using the Kupperman Index (KI; score range, 0–51), which assesses for vasomotor symptoms, paresthesia, insomnia, nervousness, melancholia, vertigo, weakness, arthralgia and myalgia, headache, palpitations, and formication.

Main results. At entry, QOL and other baseline characteristics were similar between surgical groups, but QOL was worse in both surgical groups as compared with controls. Throughout the trial, QOL was significantly higher (P < 0.05) in the laparoscopic group compared with the laparotomy group, even after adjustment for KI score. Compared with the laparotomy group, duration of surgery was longer in the laparoscopic group, but blood loss and reductions in hemoglobin values were lower. The total amount of pain medication used during hospitalization and pain scores at discharge were lower in the laparoscopic group compared with the laparotomy group. As well, the mean hospital stay and length of time needed to return to full activity and/or work were shorter with laparoscopy. No significant difference in intraoperative complications was observed between groups, but postoperative complications were significantly less common in the laparoscopic group. At 3-month follow-up, QOL scores were significantly lower in both treatment groups as compared with controls.

Conclusion. In early-stage endometrial cancer, a laparoscopic treatment approach is associated with improvements in QOL as compared with a laparotomic approach.

Commentary

Early-stage endometrial cancer is curable with surgery and adjuvant therapy that generally includes radiation (or chemotherapy) with or without brachytherapy. Total abdominal hysterectomy/bilateral salpingo-oophorectomy, along with pelvic and para-aortic nodal dissection, omentectomy, and maximal tumor debulking, traditionally has been performed via laparotomy. Vaginal-assisted laparoscopic hysterectomy is still considered best performed as part of a clinical trial but is gaining acceptance as an alternative to an open procedure for patients with early-stage disease. Potential advantages of this less invasive approach include faster recovery times (and shorter hospital stays), better cosmetic outcomes, less intraoperative blood loss, and less pain. The potential pitfalls of minimally invasive surgery include tumor seeding, inadequate peritoneal evaluation, and challenges due to operator inexperience, adhesions from prior surgeries, and other technical issues.
and removal of large tumors [1,2]. Prospective randomized studies of the 2 surgical approaches are lacking.

In this small, randomized prospective study, Zullo and colleagues sought to compare laparoscopic and laparotomic approaches to early-stage endometrial cancer in terms of QOL. Although the trial was relatively small for a randomized study and limited by the fact that 1 physician performed all of the procedures (making the results less generalizable), the results are provocative. Laparoscopy improved QOL as compared with laparotomy. Additionally, pain was reduced, blood loss at surgery was minimized, and recovery time was shorter. Indeed, aside from a longer operative time (which conflicts with historical data), laparoscopy appears to be at least as good as laparotomy in every category measured. The instruments used in this trial have been validated, and the methodology was well outlined by the authors. Importantly, because disease-free survival and overall survival were not primary objectives of this trial, the results do not inform us about the efficacy of laparoscopy for early-stage endometrial cancer. Improvements in QOL, while important, are often sacrificed by patients with cancer when survival may be compromised. However, if larger prospective studies corroborate this study’s findings while proving efficacy, then laparoscopic management would be the standard approach for early-stage disease (excluding obvious contraindications).

**Applications for Clinical Practice**

Laparoscopy is an emerging alternative to laparotomy in treating women with early-stage endometrial cancer; however, it is still not considered standard practice.

—Review by David R. Spigel, MD

**References**
