European Journal of Obstetrics & Gynecology and Reproductive Biology 170 (2013) 539–543

Contents lists available at ScienceDirect

European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb

Quality of life in patients with endometrial cancer treated with or without systematic lymphadenectomy

Roberto Angioli [a], Francesco Plotti [a,*], Ester Valentina Cafà [a], Nella Dugo [a], Stella Capriglione [a], Corrado Terranova [a], Roberto Montera [a], Federica Guzzo [a], Pierluigi Benedetti Panici [b]

[a] Campus Bio-Medico, University of Rome, Italy
[b] La Sapienza, University of Rome, Italy

ARTICLE INFO

Article history:
Received 20 September 2012
Received in revised form 30 May 2013
Accepted 15 July 2013

Keywords:
Endometrial cancer
Lymphadenectomy
Quality of life

ABSTRACT

Objective: To compare the quality of life (QoL) of women affected by endometrial cancer treated with surgery with or without systematic lymphadenectomy.
Study design: Consecutive patients affected by stages I and II endometrial cancer and treated with surgery between 2008 and 2011 were selected. Eligible subjects were divided into two groups: Group A consisted of 36 patients who had hysterectomy plus bilateral salpingo-oophorectomy without lymphadenectomy; Group B consisted of 40 patients who had hysterectomy plus salpingo-oophorectomy plus pelvic and aortic lymphadenectomy. The EORTC Quality of Life Questionnaire-Cancer Module (QLQ-C30) and Quality of Life Questionnaire-Endometrial Cancer Module (QLQ-EN24) were administered to selected patients. All data were recorded and then analyzed using the scoring manual of the EORTC Quality of Life Group.
Results: Among symptom scales, only lymphedema gave a statistically significant difference among two groups, with a score of 10.64 ± 17.43 in Group A and 21.66 ± 24.51 in Group B ($p = 0.0285$). The p value obtained comparing the "Global Health Status" (items 29 and 30) in Group A and in Group B was not statistically significant.
Conclusion: Lymphadenectomy did not influence negatively global health status, but lymphadenectomy maintained its importance in determining a patient's prognosis and in tailoring adjuvant therapies. We therefore support its practice as part of the surgical procedure in patients affected by high risk endometrial cancer.

1. Introduction

In developed countries, endometrial cancer represents the most common gynaecologic cancer [1]. In the United States approximately 42,160 cases are diagnosed annually and 7780 deaths occur, while in Italy over 4000 new cases are diagnosed yearly [2]. The standard treatment in its early stages, according to the United States National Cancer Institute, includes total abdominal hysterectomy and bilateral salpingo-oophorectomy plus lymph node sampling. Pelvic lymph nodes represent the most common site of extrauterine disease in patients with clinical early-stage disease. The staging role of lymph node resection is widely recognized, but no discernible therapeutic impact has been identified [3].

A recent large retrospective analysis, conducted on the SEER database that included 42,184 women, found that the extent of lymph node resection was associated with improved survival among women with intermediate- or high-risk endometrial cancer [4]. Two large randomized trials, however, evaluated the role of lymphadenectomy in endometrial cancer: both of them compared systematic lymphadenectomy with no lymphadenectomy with regard to survival after conventional surgery in patients suspected preoperatively to have early-stage endometrial carcinoma. The results showed no evidence of benefit in terms of overall or recurrence-free survival in the lymphadenectomy group [5,6], although systematic pelvic lymphadenectomy statistically significantly improved surgical staging. Moreover, patients undergoing pelvic systematic lymphadenectomy had a higher rate of postoperative complications than those who received only conventional surgery. Despite recommendations by national and international guidelines to include lymph node dissection (LND) as a standard component of the staging of endometrial cancer, many women continue not to undergo LND at the time of their primary surgery.

* Corresponding author at: Department of Obstetrics and Gynecology, University of Rome "Campus Bio-Medico", Via Álvaro del Portillo, 200-00128 Rome, Italy. Tel.: +39 3452572851; fax: +39 06 22541456.
E-mail address: f.plotti@unicampus.it (F. Plotti).

0301-2115/$ – see front matter © 2013 Elsevier Ireland Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ejogrb.2013.07.037

No study, however, has reported the impact of postoperative complications on quality of life in patients who underwent lymphadenectomy and those who did not. Quality of life (QoL) has been considered as an end-point for clinical cancer research, and could be relevant in the discussion of the treatment choice.

This is the first study to compare the QoL of women with endometrial cancer undergoing surgery with or without systematic lymphadenectomy, using the European Organization for Research and Treatment of Cancer (EORTC) Quality of Life Questionnaire-Cancer Module (QLQ-C30) and Quality of Life Questionnaire-Endometrial Cancer Module (QLQ-EN24).

2. Materials and methods

We retrospectively selected consecutive patients affected by endometrial cancer and treated with surgery between 2008 and 2011, from the OB/GYN department's database of Campus Biomedico of Rome. Eligibility criteria were: patients submitted to hysterectomy and bilateral salpingo-oophorectomy with or without lymphadenectomy, according to guidelines, with histologically confirmed diagnosis of endometrial cancer at stages I and II, according to the International Federation of Gynaecology and Obstetrics (FIGO) system; and surgical treatment performed more than 12 months but not more than 36 months before admission to the study.

Exclusion criteria were: concurrent or previous history of other cancer, previous or concomitant radiation or chemo-radiation treatment, concurrent or previous medical illnesses, previous surgery, and physical or cognitive inability to understand and/or complete the questionnaire.

Eligible subjects were divided into two groups. Group A consisted of patients affected by endometrial cancer (FIGO stages IA with grade 1–2, with no lymph-vascular space invasion), who had hysterectomy and bilateral salpingo-oophorectomy without lymphadenectomy. Group B consisted of patients affected by endometrial cancer (FIGO stage IA with grade 3 or with lymph-vascular space invasion; FIGO stages IB and II) who had hysterectomy and bilateral salpingo-oophorectomy plus pelvic and aortic lymphadenectomy.

During the follow-up period (12–36 months) we proposed the EORTC Quality of Life Questionnaire-Cancer Module (QLQ-C30) and Quality of Life Questionnaire-Endometrial Cancer Module (QLQ-EN24) to the selected patients (http://groups.eortc.be/qol/index.htm). The questionnaires were administered in the Italian language by physicians to those who gave consent, with permission from the EORTC QoL group to use the Italian version in this specific study. The interview took place in a private counselling room in the hospital ward or in the gynaecologic oncology clinic. The authors conducted all interview sessions to ensure consistency of participants' responses and to reduce inter-rater variability.

The EORTC QLQ-C30 is a specific questionnaire for assessing the general QoL of cancer patients. The module consists of thirty items including five functioning domains (Physical, Role, Cognitive, Emotional and Social), three symptom scales (Fatigue, Pain, Nausea and Vomiting), global health and overall QoL scales, several single items that assess additional symptoms commonly reported by cancer patients (Dyspnoea, Insomnia, Appetite loss, Constipation and Diarrhoea) and the perceived financial impact of the disease and treatment.

The EORTC QLQ-EN24 is a standardized questionnaire and permits evaluation of the QoL of patients with all stages of endometrial cancer managed with a specific treatment. The module consists of 24 items including ten symptom scales (Lymphoedema, Urological and Gastrointestinal symptoms, Poor body image, Sexual/vaginal problems, Pain in back and pelvis, Tingling/numbness, Muscular pain, Hair loss and Taste change) and three functional scales (Sexual interest, Sexual activity, Sexual enjoyment).

All data were recorded and then analyzed using the scoring manual of the EORTC Quality of Life Group, and transformed to a 0–100 scale. We used a non-parametric test (unpaired t test) to compare the QLQ-EN24 and the QLQ-C30 items in each group. Mean scores and standard deviations (SD) were calculated. Statistical significance was set at a p value < 0.05. Higher scores on symptom scales mean a higher symptom level, whereas a higher score on functional scales, related to sexuality, shows better sexual functioning.

The last four questions of the EORTC QLQ-EN24 relating to sexual/vaginal problems are optional, and only sexually active patients can answer, so only eligible respondents' scores were considered. Regarding the QLQ-C30, we performed a comparison of only the "Global Health Status" (items 29 and 30).

3. Results

We identified 95 patients with endometrial cancer who underwent surgery between January 2008 and February 2011 at Campus Bio-medico University of Rome. Five patients did not agree to participate, nine were unreachable and five were unable to answer.

Seventy-six patients were included in the study and divided into two groups: Group A consisted of 36 patients who had had hysterectomy plus salpingo-oophorectomy without lymphadenectomy; Group B consisted of 40 patients who had hysterectomy plus salpingo-oophorectomy plus pelvic and/or lymphadenectomy. Median follow-up was 23.5 months (range 13–34).

The mean age of the patients was 64.5 years in group A and 62.5 years in group B, mean BMI was 28.11 and 30 respectively, and mean parity was 2 in both groups. The two populations were homogeneous. Sixty-three patients (32/36 and 31/40 respectively in group A and group B) were treated with surgery by laparotomy, and thirteen (4/36 and 9/40 respectively in group A and group B) by laparoscopy. All patients in group B were submitted to lymphadenectomy, and the mean number of lymph nodes removed was 21.5.

The most frequent histological type was endometrioid adenocarcinoma (92% in group A and 100% in group B). Among group A two patients presented with clear cell adenocarcinoma and another one presented with papillary serous adenocarcinoma. In group A there were 100% of patients with stage IA and grade 1–2; in group B there were 55% of patients with stage IA, 30% with stage IB and 15% with stage II and grade 3.

Among group A twelve patients were treated with adjuvant chemotherapy, 6 due to histological high-risk type (2 papillary serous adenocarcinoma, 1 clear cell adenocarcinoma and 3 with adenosquamous component), 6 due to discrepancy between histological examination findings at hysteroscopy done prior surgery and definitive histological examination (G3 versus G2). Among group B sixteen patients were treated with adjuvant chemotherapy (Table 1). The patient characteristics, treatment data, histological characteristic and FIGO staging are shown in Table 1. Eight patients among Group A and 19 patients among Group B did not answer at the last four questions related to sexual/vaginal problems.

All the results of the QLQ-EN24 are summarized in Table 2. Among symptom scales, there were no significant differences between the groups in Urological and Gastrointestinal symptoms, Poor body image, Pain in back and pelvis, Muscular pain, Hair loss and Tingling. Only lymphedema gave a statistically significant difference between the two groups, with a score of 10.64 ± 17.43 in Group A and 21.66 ± 24.51 in Group B ($p = 0.0285$). Among patients