

LAPAROSCOPIC TRANSPERITONEAL LYMPHADENECTOMY FOR GYNAECOLOGICAL CANCERS

Dogan Vatansever, M.D.

Consultant Gynecologic Oncologist

Health Sciences University, Kartal Research and Training Hospital,

Department of Obstetrics and Gynaecology, Gynaecologic Oncology Unit

Laparoscopic surgery dramatically evolved in gynecologic oncology in last three decades. As a minimally invasive approach this technique is associated with shorter length of stay in hospital, a shorter time to recovery after surgery and a noticeable improvement in quality of life measures of patients that underwent gynecological oncologic surgery. In addition to that it is advantageous in terms of better vision and more precise dissection during surgery. After scientific data has been able to show that this technique is not inferior in any aspects to conventional open surgery, laparoscopy is the recommended way of surgery for endometrial cancer. In this cohort of patients of whom overwhelming majority are obese, laparoscopy has additional advantages. Cervical cancer is the other gynecological cancer where laparoscopic surgery has advantages. Especially the need for delicate dissections in surgical treatment of cervical cancer (Radical hysterectomy, lymph node dissection, etc.) has accelerated the laparoscopy to gain ground in this surgery. Also, the need for high quality precise vision in especially nerve sparing radical hysterectomy, increased the acceptance of laparoscopy in this type of gynecologic cancer. Finally, recently published data on laparoscopic surgery for early stage ovarian cancer has been able to show that in early stage disease, more specifically in stage I disease laparoscopy is a feasible way of surgery for staging of patients. There was no difference in means of prognosis and recurrence rate in this group of patients.

One of the major steps of implementing laparoscopy in daily gynecologic oncologic surgery is being able to perform laparoscopic lymph node dissection which is in common for all these three-major gynecologic oncological diseases. There are several studies showing that the lymph node counts are not statistically different than open surgery in laparoscopy. Also, the morbidity

and hospital stay is reduced without an increase in intraoperative complication rate.

Even though it is less easy, with more limitations and a longer learning curve in accordance with pelvic lymph node dissection, transperitoneal paraaortic lymph node dissection is also feasible.

And last but not the least, I would like to mention sentinel lymph node dissection. Laparoscopic surgery is one of the finest technique and probably the most cost effective one for sentinel lymph node dissection. Especially after the era of infrared technology and indocyanine green which is the dye with superior technical properties in against to all other modalities such as the blue dye and the radionuclide tracers in many aspects, the laparoscopy is the recommended surgical approach by the leading centers.

To conclude, laparoscopic lymphadenectomy is a very useful technique and one of the main steps in surgical minimally invasive gynecologic oncology. In my presentation, I would like to give some data overview and to mention some tips and tricks about laparoscopic transperitoneal lymphadenectomy for gynecologic oncological cancers.

SCREENING FOR CERVICAL CANCER, A MAJOR PUBLIC HEALTH CHALLENGE – A
SYSTEMATIC REVIEW

Prof. Astrit Bimbashi-1, Mirela Rista-2, Redi Hoxhallari-2

1 Head of Obstetric Department, UHOG “Koco Gliozheni”, Tirana, Albania

2 Department of Gynecology, UHOG “Koco Gliozheni”, Tirana, Albania

Email astrit.bimbashi@yahoo.com

The systematic review on which this paper is based provides evidence on Preventive Health Care to update the guidelines regarding screening for cervical cancer. In this article we highlight three questions covered in the full review that pertain to the effectiveness of screening for reducing cervical cancer mortality and incidence as well as optimal timing and frequency of screening.

Organizing for the first time a training course for professionals of women clinics, we prepare the way for starting the piloting of the systematic cervical cancer screening program these years.

We searched MEDLINE, and Cochrane Database from 2000 to 2012 for relevant randomized controlled trials and observational studies with comparison groups. Eligible studies included women aged 20 to 70 years who were screened using conventional cytology, liquid-based cytology or human papillomavirus DNA tests. Relevance screening, data extraction, risk of bias analyses and quality assessments were performed in duplicate. We conducted a meta-analysis using a random-effects model on the one body of evidence that could be pooled.

After the evaluation, 20 studies were included; five older studies located in a United States Preventive Services Task Force review were also included. A randomized controlled trial in India showed even a single lifetime screening test significantly decreased the risk of mortality from and incidence of advanced cervical cancer compared to no screening (mortality: risk ratio 0.65, 95% confidence interval 0.47, 0.90; incidence: relative

risk 0.56, 95% confidence interval 0.42, 0.75). Cytology screening was shown to be beneficial in a cohort study that found testing significantly reduced the risk of being diagnosed with invasive cervical cancer compared to no screening (risk ratio 0.38; 95% confidence interval 0.23, 0.63). Pooled evidence from a dozen case-control studies also indicated a significant protective effect of cytology screening (odds ratio 0.35; 95% confidence interval 0.30, 0.41).

The available evidence supports the conclusion that cervical screening does offer protective benefits and is associated with a reduction in the incidence of invasive cervical cancer and cervical cancer mortality. This review found no conclusive evidence for establishing optimal ages to start and stop cervical screening, or to determine how often to screen.

Key Words: cervical cancer, screening, public health

THE SIGNIFICANCE OF SENTINEL LYMPH NODES IN SURGICAL TREATMENT OF ENDOMETRIAL CANCER

Ass dr sci med Lazar Nejković

Medical faculty, University of Belgrade, Clinic for Gynecology and Obstetrics "Narodni front", Belgrade, Serbia

lnejkovic@sbb.rs

Abstract

Introduction: The growing trend of incidence of suffering and dying from endometrial carcinoma, which has been registered across the world in recent years, is the reason why this disease has become one of the major public health problems in the female population all over the globe. The survival rate of those suffering from endometrial carcinoma is almost 90%, while that percentage is drastically reduced if pelvic lymph nodes are positive to a metastatic disease and amounts to around 50%. The studies have demonstrated that the incidence of metastases in adenoids amounts to around 10% and highly depends on clinical, pathoanatomical, and morphological characteristics of the actual disease. However, lymphadenectomy in the treatment of patients suffering from the uterine cancer is the subject matter of numerous debates at national and international conferences, which clearly points to the fact that there is no consistent position concerning the importance of its role in the therapeutic approach to this disease. Namely, numerous studies have indicated that the incidence of serious complications in patients, who had been subjected to systematic lymphadenectomy, is significantly higher compared to the groups of patients who had not been subjected to this extensive surgical procedure. For this reason, a great number of studies have been conducted for the purpose of identification of the most optimal method of selection of patients who really need to be subjected to the systematic lymphadenectomy. In recent years, in these terms, for the purpose of reduction of the postoperative morbidity, the role of the Sentinel node lymphadenectomy in the assessment of the status of the pelvic

lymphatic system in the group of women suffering from endometrial carcinoma has been increasingly investigated.

Objectives: (I) Determining of SLN detection rate on the sample of women in early stage of endometrial carcinoma; (II) Investigation of the value of the rate of false negative findings, sensitivity, specificities, positive and negative predictive SLN value in the assessment of the status of the pelvic lymph nodes; (III) Comparison of histological findings of lymph nodes obtained using H&E technique and other lymph nodes using supplementary ultra staging technique - IHH, when the H&E technique has confirmed the absence of metastases; (IV) Investigation of the correlation between the presence of metastases in SLN with the postoperative histological finding and the degree of advancement of endometrial carcinoma.

Materials and methods: The cross-sectional study was conducted at the Obstetrics and Gynaecology Clinic Narodni front in Belgrade in the period from February 2015 to June 2016. The study included all the patients who had met the following criteria: histopathologically verified presence of endometrial adenocarcinoma, of medium (G2) and poor differentiation (G3), assessed as stage I uterus carcinoma according to the International Federation of Gynaecology and Obstetrics, as well as written consents of the subjects for participation in the study. The criteria for exclusion of patients from the study were as follows: previously performed surgeries that compromise the drainage of lymph from the uterus, presence of congenital uterus anomalies, other confirmed histological types of endometrial carcinoma – clear cell and seropapillary form, presence of synchronous malignant diseases, allergies to the contrast dye, varicose veins present on the lower extremities and thrombotic disease of the pelvis and the lower extremities. The surgical treatment in the studied group of patients implied conventional hysterectomy with adnexectomy with Sentinel lymph node dissection and parallel complete pelvic lymphadenectomy. Histopathological analysis had been initially made using the H&E technique for all the slides. The supplementary histopathological analysis was made by applying the ultra staging technique using anti-cytokeratin antibodies for Sentinel lymph node slides and other lymph nodes where the existence of

metastatic diseases using H&E technique had not been confirmed.

Results: Among the sample of 30 patients having endometrial carcinoma an average age was 63.1 ± 8.4 years. An average value of the body mass index, in the observed cohort of subjects, was $28.9 \pm 4.6 \text{ kg/m}^2$

. 40% of subjects had had values of the body mass index in excess of 30. The majority of patients (73.3%) having endometrial carcinoma had had the G2NG2 preoperative finding. In the observed sample an average maximum invasion of endometrial carcinoma was 11.5 ± 8.9 mm, while an average maximum size of tumour change on the endometrium was 38.8 ± 14.4 mm. The total rate of SLN identification was 93.3 %, while the prevalence of the subjects having bilateral detection of Sentinel lymph nodes amounted to 83.3%. The rate of false negative findings was 0%, and the negative predictive value and sensitivity amounted to 100%. In the studied sample of patients having endometrial carcinoma positive predictive value was 62.5%, and specificities amounted to 88.0%. The presence of metastases in adenoids of the pelvis statistically significantly correlated with the younger age of the subjects, mostly by the depth of invasion, presence of lymph-vascular invasion, higher postoperative histological and nuclear grades, as well as with the presence of metastases in Sentinel lymph nodes.

Conclusion: The study has demonstrated that the Sentinel lymph node mapping technique in patients having early endometrial carcinoma is the reliable and valid procedure, which with a high probability rate reflects the status of the pelvic lymphatic system in this specific group of women. In this way the risk of existence of regional metastases can be individually assessed in every woman and the need for later postoperative therapy can be individually determined.

Surgical Assessment of Lymph Nodal Status in Endometrial Carcinoma

Omer Devaja

Department of Gynaecology, Kent Cancer Centre, UK.

Cancer arising from the lining of the womb, known as endometrial carcinoma, is now the most common gynaecological cancer in Western Europe and North America. Endometrial cancer occurs predominately in postmenopausal women (91% of cases in women over 50 years old). Global incidences vary due to differences in risk factors. A higher risk is associated with a 'western' lifestyle. The age-standardised incidence is 13.6 per 100,000 women per year in more developed countries, compared with 3.0 per 100,000 per year in less developed countries. One of the main risk factors for endometrial cancer is unopposed oestrogen. This may come from outside the body (exogenous), such as oestrogen-only hormone replacement therapy (HRT), or be produced within the body (endogenous), as with polycystic ovarian syndrome or an oestrogen producing tumour. Adipose tissue is an important source of endogenous oestrogen in postmenopausal women, and obesity is associated with an increased risk of endometrial cancer.

Most women will present to their physician with symptoms of abnormal vaginal bleeding. This is typically post-menopausal bleeding due to the ages of highest prevalence, although younger women may present with inter menstrual bleeding, menorrhagia or a change in bleeding pattern. Most women (75%) still have their tumour confined to the body of the uterus at diagnosis and three-quarters of women with endometrial cancer will survive for five years after diagnosis. Lymph node metastases can be found in approximately 10% of women, who clinically have cancer confined to the uterus at diagnosis. Lymph nodal status is the most important prognostic indicator for overall survival and guide for adjuvant therapy. The usual method of preoperative assessment of endometrial carcinoma via

imaging with computed tomography (CT), magnetic resonance imaging (MRI) and on occasion with positron emission tomography (PET) has poor sensitivity for lymph nodal involvement. Removal of all pelvic and para-aortic lymph nodes is widely advocated, even for women with presumed early stage cancer.

Lymphadenectomy is the removal of lymph nodes. These can be the clearance of all lymph nodes from an anatomical area, or sampling of a few lymph nodes from an area. Lymphadenectomy can be used for the treatment of cancers which spread to the lymph nodes draining the site of the cancer. Lymphadenectomy often refers to the systematic removal of all lymph nodes within a defined area, as opposed to lymph node sampling, which refers either to removal of a few representative lymph nodes, or removal of suspiciously enlarged nodes.

Lymph node removal is part in the international staging system (FIGO) for endometrial cancer. This recommendation is based on non-randomised studies that suggested improvement in survival following removal of pelvic and para-aortic lymph nodes. However, radio therapy treatment of pelvic lymph nodes may not be directly therapeutic. Involvement of lymph nodes may just indicate that a woman has a more aggressive cancer and therefore a poorer prognosis. Results of a systematic review and meta-analysis of RCTs of routine radiotherapy to treat possible lymph node metastases in women with early-stage endometrial cancer, did not improve survival.

It is interesting that results of randomised controlled trials (RTC) demonstrating no survival benefit of routine lymphadenectomy in presumed early stage endometrial cancer. Lymphadenectomy gives prognostic information only, and whilst prognostic information is useful, these data also demonstrate that there is a real cost to gathering this information in form of the long term sequelae of lymphadenectomy. However knowledge of cancer spread gives prognostic information and guides the need for adjuvant treatment, in the form of radiotherapy, or possibly chemotherapy.

Sentinel node detection represent attractive alternative for lymph nodal status

assessment in endometrial carcinoma. SLN is defined as the first node in lymphatic drainage basin that receives drainage from the primary tumour. This method potentially can provide more accurate assessment of lymph nodal status (both pelvic and para-aortic) and in the same time reduce morbidity of systematic lymphadenectomy. Better accuracy is related to ability to identify involved lymph node (SLN) which is sometime located in places not usually included in systematic lymphadenectomy. Ultra staging of SLN enables detection of smaller amount of metastatic disease in lymph nodes which is usually missed by routine histological lymph node assessment. Further results are required to determine indications for adjuvant treatment in case of micro metastases in SLN. Frozen section analysis on sentinel node has not proven to be useful in clinical practice.

Published results so far seem to confirm safety and accuracy of SLND procedure.

In respect of published data it is difficult to identify the best detection method and protocol. It appears that cervical injections is the most convenient, the most acceptable for the patient and provide the best detection rates. Combined technique with Tc-99 and blue dye gives the best detection rates but new fluorescence imaging might be valid alternative, and require further studies to confirm place in clinical practice. Data seem to indicate that in case of unilateral detection of SLN it is necessary to perform full lymphadenectomy on contralateral side. Bulky lymph nodes on preoperative imaging can make SLN detection inaccurate. The SLN technique in these patients is probably unreliable because bulky metastatic disease blocks lymphatic vessels and obstructs the drainage of Tc99 and blue dye into the node. It is imperative that surgeons are adequately trained in this technique and demonstrate sufficient work load to maintain the skill. All results need to be regularly audited. Before adopting SLN detection only technique, SLN detection should be part of systematic lymphadenectomy to demonstrate false negative results and determine best indications for this procedure.