Lymphadenectomy’s Role in Early Endometrial Cancer: Prognostic or Therapeutic?

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In 1988, endometrial cancer became a surgically staged disease. Because frequent inaccuracies in clinical staging were recognized, the International Federation of Gynecology and Obstetrics introduced a new surgicopathologic staging system that emphasized the prognostic value of surgical staging information (1). Largely on the basis of the seminal findings of the Gynecologic Oncology Group (GOG) 33 trial (2), surgical staging was introduced that incorporated pathologic risk factors to better define the extent of disease, estimate prognosis, and guide adjuvant treatment recommendations. Despite implementation of this more accurate staging system, optimal treatment for the management of endometrial cancer remains controversial, particularly in patients with intermediate-risk disease, which is defined as corpus-confined tumors with high-risk features (high tumor grade, deep myometrial invasion, cervical extension, and serous or clear cell histology). At the heart of this debate are the therapeutic roles of lymphadenectomy and adjuvant radiation.

The pelvic lymph nodes are the most common site of extraperitoneal disease. By current standards, endometrial cancer should be primarily treated through a surgical approach that includes cytologic washings (ie, fluid from the pelvic cavity), extrafascial hysterectomy, and pelvic lymphadenectomy. Lymphadenectomy more accurately identified metastatic spread and disease stage (13% detection of lymph node metastases in the lymphadenectomy arm vs 3% in the no-lymphadenectomy arm). Despite a statistically significantly longer operating time and a slightly longer length of stay in the hospital in the lymphadenectomy arm). Despite a statistically significantly longer operating time and a slightly longer length of stay in the hospital in the lymphadenectomy arm, there were no differences in overall survival between the two arms. Although the patient characteristics in this trial are slightly out of balance, favoring improved survival in the no-lymphadenectomy arm (46% stage IA or IB vs 33% in the lymphadenectomy arm), this level I evidence (from a randomized controlled trial) is consistent with findings of a study in the Treatment of Endometrial Cancer trial (9) — a British randomized controlled trial that also found no survival benefit associated with pelvic lymphadenectomy in early stage endometrial cancer.

Panici’s trial also addressed other possible pros and cons of lymphadenectomy. Lymphadenectomy more accurately identified metastatic spread and disease stage (13% detection of lymph node metastases in the lymphadenectomy arm vs 3% in the no-lymphadenectomy arm). Despite a statistically significantly longer operating time and a slightly longer length of stay in the hospital in patients in the lymphadenectomy arm, there were no differences in estimated blood loss or rates of blood transfusion. The rate of...
intraoperative complications was similar in both arms, but both early and late postoperative complications occurred more frequently in the lymphadenectomy arm, largely due to the development of lymphocysts and lymphedema. There were no statistically significant differences in the use of adjuvant treatment, with no further treatment administered to 69% in the lymphadenectomy arm and 65% in the no-lymphadenectomy arm. Although not statistically significantly different, the types of adjuvant treatment differed slightly between the two arms, with more chemotherapy and less radiation therapy being used in the surgically staged patients. The authors conclude that, although a survival benefit could not be demonstrated, lymphadenectomy maintains its importance in determining a patient’s prognosis and tailoring adjuvant therapies.

So, where are we now? Endometrial cancer care is rapidly evolving toward more personalized treatment recommendations to improve outcome and minimize toxicity and cost. But do these new findings obviate the need for lymph node assessment in early stage endometrial cancer? Without a demonstrable survival benefit, the answer to this question comes down, in part, to one’s personal philosophy. We have level I evidence demonstrating that neither pelvic lymphadenectomy nor adjuvant radiation therapy confers any survival benefit in early stage endometrial cancer. These results bust the myth that is based on previous retrospective studies that lymphadenectomy, in and of itself, provides therapeutic benefit and survival advantage in endometrial cancer. Yet, this trial continues to support the notion that lymphadenectomy can provide important prognostic information and can help guide adjuvant treatment recommendations.

References