

Grade and Maximum Tumor Dimension as Determinants of Lymphadenectomy in Patients with Endometrioid Endometrial Cancer (EEC)

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Abstract : Introduction: Endometrial Cancer is a common gynecologic malignancy primarily treated with complete surgical staging, which may include complete pelvic and para-aortic lymphadenectomy. The role of lymphadenectomy is controversial, especially the intraoperative indications for the procedure. Three factors are important in decision to proceed with lymphadenectomy: Myometrial invasion, maximum tumor dimension, and histology. Many institutions incorporate these criteria in varying degrees in the decision to proceed with lymphadenectomy. This investigation assesses the use of intraoperatively measured MTD with and without pre-operative histologic grade. Methods: This study compared retrospectively EEC patients with intraoperatively measured MTD \leq 2 cm to those with MTD $>$ 2 cm from January 1, 2002 to August 31, 2017. This assessment compared those with MTD \leq 2cm with endometrial biopsy (EB) grade 1-2 to patients with MTD $>$ 2cm with EB grade 3. Lymph node metastasis (LNM), recurrence, and survival were compared in these groups. Results: This study reviewed 222 patient cases. In tumors $>$ 2 cm, LNM occurred in 20% cases while in tumors \leq 2 cm, LNM was found in 6% cases ($p=0.04$). Recurrence and mean survival based on last follow up visit in these two groups were not statistically different ($p=0.78$ and 0.36 respectively). Data demonstrated a trend that when combined with preoperative EB International Federation of Gynecology and Obstetrics (FIGO) grade, a higher proportion of patients with EB FIGO Grade 3 and MTD $>$ 2 cm had LNM compared to those with EB FIGO Grade 1-2 and MTD \leq 2 cm (43% vs, 11%, $p=0.06$). LNM was found in 15% of cases in which lymphadenectomy was performed based on current practices, whereas if the criteria of EB FIGO 3 and MTD $>$ 2 cm were used the incidence of LNM would have been 44% cases. However, using this criterion, two patients would not have had their nodal metastases detected. Compared to the current practice, the sensitivity and specificity of the proposed criteria would be 60% and 81%, respectively. The PPV and NPV would be 43% and 90%, respectively. Conclusion: The results indicate that MTD combined with EB FIGO grade can detect LNM in a higher proportion of cases when compared to current practice. MTD combined with EB FIGO grade may eliminate the need of frozen section sampling in a substantial number of cases.

Keywords : endometrial cancer, FIGO grade, lymphadenectomy, tumor size

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