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Clinical Commentary

Lymphnode staging update in the American Joint Committee on Cancer 8th Edition cancer staging manual

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HIGHLIGHTS

- The AJCC 8th Edition staging manual addresses individual tumor cells (ITCs) in lymphnodes for gynecologic cancers.
- Rate of detection of ITCs in lymphnodes is increasing.
- Clinical significance of ITC is not fully understood.
- Presence of ITCs should be recorded but does not affect lymph node status.

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The 8th edition staging manual of the American Joint Committee on Cancer (AJCC) was published beginning of last year (2017). The updated staging in this important manual was adopted in the United States on January 1, 2018. AJCC utilizes the tumor, node, metastasis system (TNM) however; AJCC collaborates closely with both the international union against cancer (UICC) and the international federation of obstetricians and gynecologists (FIGO). As a result of these important collaborations, the AJCC TNM staging system for gynecologic malignancies aligns with FIGO staging.

The purpose of this clinical commentary is to draw awareness to an important update in the 8th edition regarding 'N' (lymph node) category of the TNM. A new category was added, designated pN0(i+) category, this is a situation where there are individual tumor cells (ITC) detectable in the assessed lymph node(s). In general, lymph nodes involved with cancer metastasis fall into one of 3 categories based on the size of metastasis; [1] ITC, <0.2 mm, [2] micrometastasis, 0.2–2 mm and [3] macrometastasis, >2 mm. ITCs and micrometastasis are commonly, jointly referred to as low volume metastasis (LVM). Although the ITC designation will not currently change the overall stage grouping, we believe it is important to collect the ITC data for eventual analysis. In future, we will hopefully be able to determine the significance of ITC if any.

The AJCC gynecologic cancer panel made this decision for a number of reasons; first, we were concerned regarding the paucity of data about the significance of ITC in gynecologic malignancies, second, FIGO staging system has not addressed ITC, third, sentinel lymph node dissection is becoming increasingly popular in the management of gynecologic cancers. The sentinel lymph node approach is now utilized in vulvar, cervical and uterine cancers. Sentinel lymph nodes are ultrastaged and processed with immunohistochemistry as a result of which ITCs and micrometastasis are increasingly detected. For instance, sentinel lymph nodes processed appropriately will detect 35–63% of LVM in endometrial cancer [1–3].

Regardless of our enhanced ability to detect LVM, the impact of their presence on prognosis remains unclear [4]. Partnering with our gynecologic pathology colleagues who will help with pathological processing of lymph nodes with LVM documentation and relying on our registrars nationwide to collect the data, the 9th edition of the AJCC staging manual will likely contain definitive data on this important subject.

Aspects of cancer staging will always remain controversial regardless of our efforts to perfect the art of staging. Gynecologic oncologists, medical oncologists and other gynecologic cancer care providers are encouraged to continue individualization of therapy for gynecologic malignancies.

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