To Count and How to Count, That Is the Question

DOI: 10.1309/AJCP09L2PEYIMNYQ

To the Editor

I congratulate Parkash et al\(^1\) on highlighting an important misunderstanding between pathologists and oncologists. A rash of publications lauding the use of “minimum node count” as a quality measure for evaluation of cancer stage rely on mining cancer registries, such as Surveillance, Epidemiology, and End Results,\(^2\) in which node counting methods are not standardized. Other oncologists suggest that node counts may be increased simply by changing hospital policy (ie, cases with fewer than the required count are reviewed and revised).\(^3\) Parkash et al\(^1\) demonstrate that such reviews may merely increase counts by changing the counting methods.

The problems indicated by Parkash et al\(^1\) should really only apply to the evaluation of small lymph nodes found by histologic evaluation in the fatty tissue remaining after dissection of grossly evident nodes. Another underrecognized variation in reported lymph node counts stems from discrepancies between pathologists’ gross and microscopic analyses. We recently reviewed slides and reports from 35 sequential pelvic dissections. Although our microscopic review confirmed the number of grossly identified lymph nodes, the final reported node counts were often much higher (by up to 16 nodes) than these gross counts. This was due to double counting, where fatty replacement created islands of unencapsulated lymphoid tissue in microscopic sections, and including out-of-plane projections of nearby larger nodes.

One cannot base node count on histology alone. The Association of Clinical Pathologists Guidelines state that “nodes are often extensively replaced by adipose tissue, leaving only a small residual rim of lymphoid tissue, and estimation of node numbers in pelvic lymphadenectomy specimens is often inaccurate. In our opinion, there is insufficient evidence in the literature to mandate a definitive assessment of node numbers, both total and positive, in pelvic lymphadenectomy specimens.”\(^4\)

At each body site, the adequacy of a node dissection should be based on the anatomic extent of that dissection. That extent should be chosen, in a study setting, to maximize the number of positive nodes.\(^5,6\) Adequacy can then be assessed by documenting surgical landmarks by intraoperative photography or even clinical notes.

For pelvic lymphadenectomies, my division has decided to rely on the gross node count when available—the node count is never increased based on microscopic examination and it is assumed that small islands of lymphoid tissue are due to fatty replacement. After gross dissection, the remaining adipose tissue is processed, and any lymphoid aggregate more than 1 mm is considered a node.

Although the policy clearly applies a double standard, it is at least a consistent standard. It will be nearly impossible to find a consensus definition of a lymph node in this setting. The anatomic purists will always demand the presence of a capsule, sinus, and germinal center. They will even order reticulin stains and step sections to demonstrate these features. Others will argue that the existence of submillimeter tumor metastases suggests that tiny unencapsulated lymphoid aggregates are the uninvolved node-like equivalent.

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References