BREAST CANCER TIMING OF SENTINEL-NODE BIOPSY

Axillary-lymph-node status is one of the most important prognostic indicators for patients with breast cancer and is used to guide treatment decisions. Sentinel-lymph-node biopsy is a staging procedure for women with clinically node-negative (cN0) breast cancer, which is associated with less acute and chronic morbidity than axillary-lymph-node dissection. Timing of sentinel-lymph-node biopsy in the context of neoadjuvant chemotherapy is controversial owing to a lack of data regarding detection rate and accuracy. Results from the SENTINA study, recently reported by Thorsten Kuehn and colleagues in the *Lancet Oncology*, might help define the optimum timing of sentinel-lymph-node biopsy in this population of patients.

In this prospective multicentre study, 1,737 women received at least six cycles of an anthracycline-based regimen. Patients with cN0 or node-positive disease (cN+) underwent sentinel-lymph-node biopsy before neoadjuvant chemotherapy. For women with cN0 disease who were node negative at biopsy, no further dissection was performed (arm A, $n=662$); if they were pathologically node positive, another biopsy was performed after treatment (arm B, $n=360$). Women with cN+ disease who converted to cN0 disease after treatment had sentinel-lymph-node biopsy and axillary-lymph-node dissection (arm C, $n=592$). Those who remained cN+ had axillary-lymph-node dissection only (arm D, $n=123$).

The detection rate for women who underwent sentinel-lymph-node biopsy before neoadjuvant chemotherapy (arms A and B) was 99.1%. Sentinel-lymph-node biopsy after treatment was less successful. Detection in arm C was better than for arm B, which included patients who had a second biopsy (80.1% versus 60.8%). The false-negative rate was also lower in arm C compared with arm B (14.2% versus 51.6%).

These results confirm that sentinel-lymph-node biopsy gives reliable results when performed before neoadjuvant chemotherapy in patients with breast cancer. However, limitations to its accuracy when performed after treatment should be considered if further biopsies are planned after adjuvant chemotherapy.

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