Neoadjuvant chemotherapy (NAC) has reshaped the treatment of early-stage breast cancer, offering tumor downstaging, improved breast conservation, and prognostic insights. From a medical oncologist's perspective, axillary lymph node (LN) status following NAC remains central to systemic therapy decision-making, as it provides both prognostic and predictive information.

Patients who achieve axillary clearance (ypN0) after NAC typically have favorable outcomes. In such cases, systemic therapy is largely guided by tumor subtype rather than nodal status. For hormone receptor (HR)-positive, HER2-negative disease, endocrine therapy may be sufficient; for HER2-positive cancers, trastuzumab-based regimens remain standard; and triple-negative patients with pathologic complete response (pCR) often do not require additional chemotherapy. Thus, nodal response enables systemic de-escalation.

By contrast, residual nodal disease (ypN+) identifies a high-risk subgroup requiring treatment escalation. The KATHERINE trial demonstrated that T-DM1 improves outcomes for HER2-positive patients with residual disease. In triple-negative breast cancer, CREATE-X supported capecitabine, while KEYNOTE-522 confirmed the benefit of continuing pembrolizumab in non-pCR cases. For HR-positive, HER2-negative disease, trials such as monarchE and NATALEE suggest that CDK4/6 inhibitors may add value for patients with high-risk nodal involvement.

Accurate assessment of the axilla after NAC is therefore essential. Imaging modalities such as ultrasound and MRI are limited in reliability, while sentinel lymph node biopsy (SLNB) after NAC can underestimate residual disease. Techniques like dual-tracer mapping or targeted axillary dissection improve accuracy but do not fully replace surgical confirmation. Without reliable nodal assessment, oncologists risk either undertreating high-risk patients or exposing low-risk patients to unnecessary therapies.

In conclusion, axillary management following NAC is not solely a surgical issue but a decisive factor in tailoring systemic therapy. ypN0 supports biology-driven de-escalation, whereas ypN+ mandates treatment intensification. Until noninvasive tools achieve higher accuracy, surgical nodal staging remains indispensable for

optimal systemic treatment planning.