

# AB011. SOH22ABS170. Incidence of treatment effect in patients with an axillary pathologic complete response after neoadjuvant chemotherapy for breast cancer

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**Background:** De-escalation of axillary surgery following neoadjuvant chemotherapy (NACT) for patients with node positive disease at diagnosis have focused on ensuring a low false negative rate for those who undergo sentinel lymph node biopsy (SLNB) only. Histopathological evidence of treatment effect is one surrogate that supports an axillary pathological complete response (pCR). This study aimed to assess rates of histological treatment effect in patients who have an axillary pCR following axillary surgery post NACT.

**Methods:** A consecutive series of patients with cytologically proven node-positive breast cancer who received NACT and achieved a nodal pCR on SLNB or axillary lymph node dissection (ALND) between 2016–2021 were retrospectively analysed. The primary outcome of interest was identification of histological treatment effect in axillary nodes.

**Results:** A total of 257 patients (median age 48 years) received NACT of which 180 had cytologically-proven node-positive disease. The median nodal yield at SLN was 4 (range, 1–9). Eighty-three patients (46%) attained an axillary pCR. Histological evidence of treatment effect

on was identified in 62% of patients overall, but was more common in those undergoing ALND (87%) than in the SLN group (56%,  $P=0.04$ ). Neither tumour subtype, grade nor breast pCR were associated with treatment effect on univariate analysis.

**Conclusions:** Histological evidence of treatment effect was only identified in 56% of patients deemed ypN0 on the basis of a post-neoadjuvant SLN and cannot be utilised as a stand-alone surrogate for confirmation of a true negative SLN. Strategies such as nodal marking/targeted axillary dissection may offer a more robust method of axillary staging post NACT.

**Keywords:** Axillary pathologic complete response; axillary lymph node dissection (ALND); breast cancer; neoadjuvant chemotherapy (NACT); sentinel lymph node biopsy (SLNB)

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## Footnote

*Conflicts of Interest:* The authors have no conflicts of interest to declare.

*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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