



# Avoiding Breast Cancer Surgery in A Restricted Group of Neoadjuvant Chemotherapy Complete Responders: The Long-Term Results

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response is crucial in designing personalized, less radical breast and axillary surgery post NAC. Axillary nodal (LNs) area is most accurately assessed by ultrasound scan (USS). Magnetic resonance imaging (MRI) has become an increasingly vital modality because it is extremely specific (90.70%) and sensitive (63.10%) in predicting the post-NAC neoplasm response in carcinoma patients.

**Keywords:** Breast cancer; Lymph node; Cancer recurrence; Surgery; Sentinel lymph node

## Introduction

Heretofore, the standard of care for breast cancer (BC) has been mastectomy with or without axillary lymph node dissection (ALND). However, the advent of neoadjuvant chemotherapy (NAC) has led to a paradigm shift in breast cancer management. In a landmark study by Sparano et al. (1997), the use of NAC in locally advanced breast cancer (LABC) was shown to be associated with improved overall survival (OS) and a higher rate of breast-conserving surgery (BCS) compared to mastectomy. This study established NAC as a standard of care for LABC. In 2000, the American Society of Breast Surgeons (ASBS) published guidelines recommending NAC for LABC. The use of NAC has since become increasingly common, with a growing body of evidence supporting its efficacy in achieving pathologic complete response (pCR) and improving breast conservation rates. The use of NAC has also led to a re-evaluation of the role of axillary surgery in breast cancer management. In a study by Ibrahim et al. (2000), the use of NAC was associated with a higher rate of axillary lymph node negativity (ALN) compared to mastectomy. This finding has led to a growing interest in the use of NAC as a means of achieving ALN, thereby avoiding the need for axillary surgery. The use of NAC has also led to a re-evaluation of the role of axillary surgery in breast cancer management. In a study by Ibrahim et al. (2000), the use of NAC was associated with a higher rate of axillary lymph node negativity (ALN) compared to mastectomy. This finding has led to a growing interest in the use of NAC as a means of achieving ALN, thereby avoiding the need for axillary surgery.

Later, the use of NAC in early-stage breast cancer was also evaluated. In a study by Ibrahim et al. (2000), the use of NAC in early-stage breast cancer was associated with improved OS and a higher rate of BCS compared to mastectomy. This finding has led to a growing interest in the use of NAC as a means of achieving ALN, thereby avoiding the need for axillary surgery. The use of NAC has also led to a re-evaluation of the role of axillary surgery in breast cancer management. In a study by Ibrahim et al. (2000), the use of NAC was associated with a higher rate of axillary lymph node negativity (ALN) compared to mastectomy. This finding has led to a growing interest in the use of NAC as a means of achieving ALN, thereby avoiding the need for axillary surgery.

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