



Neoadjuvant Systemic Therapy for Breast Cancer

Qingchen Wu*

Department of Oncology, Chongqing Medical University, Chongqing, People's Republic of China

DESCRIPTION

Adjuvant or postoperative systemic therapy is central to the treatment of early-stage breast cancer. The term neoadjuvant refers to the use of systemic therapy before surgery. Neoadjuvant therapy was originally used in breast cancer to treat inoperable locally advanced diseases. Subsequently, the role of neoadjuvant therapy in patients with operable breast cancer was extensively investigated. Based on the recognition that systemic treatment may make some inoperable patients more susceptible to surgery, there is interest in using preoperative systemic therapy to reduce the scope and morbidity of curative surgery. Several studies on both chemotherapy and endocrine therapy have shown that neoadjuvant therapy increases the likelihood of breast-conserving surgery and establishes neoadjuvant therapy as a viable option in patients with operable disease. Breast cancer affects approximately 55,000 women each year in the United Kingdom and breast cancer management has evolved in recent years as the use of individualized approaches to treatment has increased. This includes the use of neoadjuvant therapy. It can be used to reduce the scope of surgery and to assess the susceptibility of tumors to treatment in an *in vivo* environment. Long-term results from randomized controlled trials comparing neoadjuvant chemotherapy with adjuvant chemotherapy showed no significant difference in distant recurrence, breast cancer mortality. In addition, pathological responses to neoadjuvant chemotherapy have been validated as predictors of long-term outcomes, and meta-analyses show that approximately 26% of unselected patients can achieve a complete pathological response. Pathological responses to neoadjuvant chemotherapy have been validated as predictors of long-term outcomes, and meta-analyses show that approximately 26% of non-selected patients can achieve a complete pathological response (pCR). Complete pathological response (pCR) is high in some disease subtypes, for example, HER2-positive breast cancer reaches a pCR rate of up to 60% [4], and much lower response rates have been reported in

ER-positive diseases. The presence of residual lesions after neoadjuvant therapy influences the choice of subsequent adjuvant therapy and may lead to improvement. In addition, national guidelines recommend providing first-line systemic therapy for ER-negative and HER2-positive invasive breast cancer, while international guidelines recommend this approach for the treatment of stage 2 or 3 HER2-positive or triple-negative disease. Although the role of neoadjuvant endocrine therapy (NET) is still well established, primary endocrine therapy has long been used to manage hormone receptor-positive patients who may not be suitable for surgery. Several studies have shown that it is as effective as chemotherapy in strong hormone receptor-positive diseases, and preoperative endocrine prognostic indicators are post-NET to identify patients at risk of recurrence. Most of the studies in this setting are small sample sizes, low power with variable treatment duration, and the range of use of neoadjuvant endocrine therapy in UK centres remains unclear. Neoadjuvant (preoperative) systemic therapy (NST) today includes cytotoxicity, endocrine biologically targeted and non-targeted drugs administered to premenopausal and postmenopausal patients. Neoadjuvant chemotherapy (NAC) has been shown to be comparable to adjuvant (postoperative) chemotherapy in terms of disease-free survival. As a cancer biology research tool, Neoadjuvant (preoperative) systemic therapy provides a platform for efficiently assessing the safety and efficacy of new treatments while monitoring the physical and/or biological response of tumors. Mastectomy may not be an option. Currently, patients with operable breast cancer receive neoadjuvant therapy to avoid mastectomy, improve postoperative cosmetic outcomes, and limit the extent of axillary lymph node dissection. In addition, it can be used to assess response to neoadjuvant therapy, but if this can affect the choice of postoperative therapy, it is unlikely that the surgical approach will change.

Correspondence to: Wu Q, Department of Oncology, Chongqing Medical University, Chongqing, People's Republic of China, Email: qingqmu@126.com

Received: 04-Feb-2022, Manuscript No. BLM-22-15985; **Editor assigned:** 07-Feb-2022, Pre QC No. BLM-22-15985(PQ); **Reviewed:** 21-Feb-2022, QC No. BLM-22-15985; **Revised:** 24-Feb-2022, Manuscript No. BLM-22-15985(R); **Published:** 28-Feb-2022, DOI: 10.35248/0974-8369.22.14.475.

Citation: Wu Q (2022) Neoadjuvant Systemic Therapy for Breast Cancer. Biol Med. 14:475.

Copyright: © 2022 Wu Q. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permit unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.