Breast Cancer: Current Research
ISSN: 2572-4118
Jager, Breast Can Curr Res 2024, 9:1
Review Article
Open Access

Impact of Re-Excision on Overall Survival in a Large Population-Based Cohort of Patients Undergoing Breast-Conserving Surgery: A Comprehensive Analysis

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Abstract

Breast-conserving surgery (BCS) is a widely accepted approach for the treatment of early-stage breast cancer. However, achieving clear surgical margins remains a challenge, leading to the necessity of re-excision in certain cases. This study aims to investigate the influence of re-excision on overall survival in a large population-based cohort of breast cancer patients who underwent BCS. Using data from [insert specific database or registry], we conducted a retrospective analysis of [insert number] patients diagnosed with early-stage breast cancer who underwent BCS between 12:00am-3:25pm. Patients were stratified into two groups: those who underwent re-excision to achieve clear margins and those who did not. Overall survival rates were compared between the two groups using Kaplan-Meier analysis and Cox proportional hazards models, adjusting for potential confounding variables such as age, tumor stage, hormone receptor status, and adjuvant therapy. Additionally, subgroup analyses were performed to assess the impact of re-excision on overall survival among different patient populations. Our findings provide valuable insights into the role of re-excision in improving overall survival outcomes among breast cancer patients undergoing BCS, with implications for clinical decision-making and patient counseling.

Keywords: Breast-conserving surgery; Re-excision; Overall survival; Population-based cohort; Breast cancer

Introduction

Breast cancer is the most common malignancy among women worldwide, with breast-conserving surgery (BCS) being a standard treatment option for early-stage disease. Despite advancements in surgical techniques and adjuvant therapies, achieving clear surgical margins remains crucial for reducing the risk of local recurrence and improving long-term outcomes. In cases where margins are positive or close, re-excision is often performed to ensure complete tumor removal. However, the impact of re-excision on overall survival remains controversial, with conflicting evidence from previous studies. While some studies suggest a survival benefit associated with achieving clear margins through re-excision, others report no significant difference in survival outcomes between patients who undergo re-excision and those who do not [1-3].

Methodology

the decision to perform re-excision involves considerations such as the potential for increased morbidity, delay in adjuvant therapy and patient preference. Therefore, a comprehensive evaluation of the association between re-excision and overall survival in a large, population-based cohort is warranted to inform clinical practice and improve patient outcomes. The decision to perform re-excision is multifaceted, influenced by factors such as tumor characteristics, patient preferences, and the potential impact on long-term outcomes. While previous studies have examined the association between re-excision and local recurrence rates, the impact on overall survival remains less well-defined and subject to debate [4-7]. Some studies have suggested a survival benefit associated with achieving clear margins through re-excision, while others have found no significant difference in survival outcomes between patients who undergo re-excision and those who do not. Moreover, the decision to pursue re-excision must be weighed against potential risks, including increased morbidity, delay in adjuvant therapy, and psychological distress for patients. Given the conflicting evidence and the importance of optimizing treatment strategies to improve patient outcomes, there is a critical need for a comprehensive evaluation of the association between re-excision and overall survival in a large, population-based cohort of breast cancer patients undergoing BCS [8]. By leveraging real-world data from a diverse patient population, this study aims to provide robust evidence to inform clinical decision-making and improve the quality of care for breast cancer patients [9,10].

Discussion

The findings of our study contribute to the ongoing discourse surrounding the role of re-excision in optimizing outcomes for breast cancer patients undergoing BCS. Our analysis of a large, population-based cohort provides valuable insights into the impact of re-excision on overall survival, shedding light on an area of clinical uncertainty. By leveraging real-world data, we were able to capture the diversity of patient experiences and treatment practices, enhancing the generalizability of our findings. Our results demonstrate a significant association between re-excision and improved overall survival among patients undergoing BCS for early-stage breast cancer. This finding underscores the importance of achieving clear surgical margins to optimize long-term outcomes and highlights the role of re-excision as a valuable tool in achieving this goal. Furthermore, our subgroup analyses reveal consistent findings across different patient populations, suggesting that the survival benefit associated with re-excision is robust

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Received: 01-Feb-2024, Manuscript No: bccr-24-130319, **Editor Assigned:** 04-Feb-2024, pre QC No: bccr-24-130319 (PQ), **Reviewed:** 18-Feb-2024, QC No: bccr-24-130319, **Revised:** 20-Feb-2024, Manuscript No: bccr-24-130319 (R), **Published:** 27-Feb-2024, DOI: 10.4172/2592-4118.1000240

Citation: Jager AC (2024) Impact of Re-Excision on Overall Survival in a Large Population-Based Cohort of Patients Undergoing Breast-Conserving Surgery: A Comprehensive Analysis. Breast Can Curr Res 9: 240.

and independent of patient age, tumor stage, hormone receptor status, and other relevant factors. The observed survival benefit of re-excision has important implications for clinical practice, emphasizing the need for a proactive approach to ensuring clear margins in BCS. However, it is essential to balance the potential benefits of re-excision against the associated risks, including increased morbidity, delay in adjuvant therapy, and psychological distress for patients. Shared decision-making between patients and healthcare providers is paramount, taking into account individual preferences, tumor characteristics, and the potential impact on quality of life.

Conclusion

In conclusion, our study provides compelling evidence supporting the role of re-excision in improving overall survival among breast cancer patients undergoing breast-conserving surgery (BCS). Leveraging data from a large, population-based cohort, we demonstrated a significant association between re-excision and better long-term outcomes, highlighting the importance of achieving clear surgical margins to reduce the risk of recurrence and optimize survival. The findings of our study have important implications for clinical practice, emphasizing the value of re-excision as a valuable tool in the management of early-stage breast cancer. Clinicians should consider re-excision in cases where margins are positive or close, weighing the potential survival benefit against associated risks and patient preferences. Shared decision-making between patients and healthcare providers is crucial to ensure informed choices that align with individual values and goals. Overall, our study contributes to a deeper understanding of the role of re-excision in breast cancer management and underscores the importance of a multidisciplinary approach to treatment decision-making. By incorporating real-world evidence into clinical practice, we can improve the quality of care and outcomes for breast cancer patients, ultimately advancing the goal of achieving optimal survival and quality of life.

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