

Viewpoint

The challenges of breast conservative surgery in multifocal breast cancer: The first insights from Iraq experience

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This article illuminates the changing landscape of managing multifocal (MF) breast cancer, specifically within the context of Iraq. Conventionally, MF breast cancer, characterized by multiple tumors within the same quadrant, has been deemed unsuitable for breast-conserving surgery (BCS) due to the perceived risk of local recurrence. However, data from our two centers in Baghdad may challenge this perspective. Of the 239 patients diagnosed with MF breast cancer in 2020, 73 underwent BCS, with only one local recurrence (1.37%), comparable to the recurrence rate in the mastectomy group (1.20%). Despite ongoing debates regarding MF breast cancer's management and its association with higher local recurrence rates, our findings support emerging consensus on the effectiveness of BCS. Our experience from Iraq offers a unique perspective, suggesting equivalent local recurrence rates for BCS and mastectomy, necessitating a re-evaluation of surgical approaches and potentially endorsing less invasive treatments.

Keywords: Multifocal breast cancer, Breast-conserving surgery, Iraq experience, Local recurrence rate, Mastectomy

INTRODUCTION

Multifocal (MF) breast cancers, defined as the presence of more than one distinct tumor within the same quadrant of the breast, have prompted significant debate in the field of oncology. Conventionally, especially within the scope of our experience in Iraq, such cases are often considered unsuitable for breast-conserving surgery (BCS) due to the perceived increase in the risk of local recurrence. This viewpoint predominantly informs the management strategies for patients with MF breast cancer in our context. However, with the advent of modern diagnostic imaging techniques and refined surgical procedures, BCS has emerged as a formidable challenger to total mastectomy in many advanced health-care systems. Nonetheless, it's crucial to recognize the disparity in healthcare access across the globe. In countries like Iraq, a significant portion of the population lacks access to these high-end health-care facilities. In such resource-constrained settings, total mastectomy might present itself not only as a viable but possibly a more pragmatic and accessible option for many patients. Through this article, our aim is to shed light on the Iraq experience in managing MF breast cancer, leveraging data from our center and thus contributing to the broader global discourse on this matter.

OUR EXPERIENCE

In our study at the Oncology Teaching Hospital and Al-Safeer Hospital in Baghdad in 2020, the inclusion criteria specified that patients should be treated within the year and have a confirmed diagnosis of MF breast cancer through advanced imaging technologies such as magnetic resonance imaging (MRI), breast tomosynthesis (3D mammography), and histopathological analysis, and be at stage I of the disease. We emphasized the application of clearly defined treatment protocols for both BCS and mastectomy to maintain consistency in patient management.

From the data compiled, we found substantial evidence supporting the evolving viewpoints on MF breast cancer management. A total of 594 patients were included, with 239 identified as having MF breast cancer. Of these, 73 underwent BCS, with only one experiencing local recurrence, yielding a recurrence rate of approximately 1.37%. Conversely, of the 166 patients treated with mastectomy, two experienced local recurrence, resulting in a comparable recurrence rate of about 1.20% [Figure 1]. The local recurrence was followed up using MRI in 2023. A Chi-square test produced $P = 0.91$, indicating no significant difference in local recurrence rates between the BCS and mastectomy groups.

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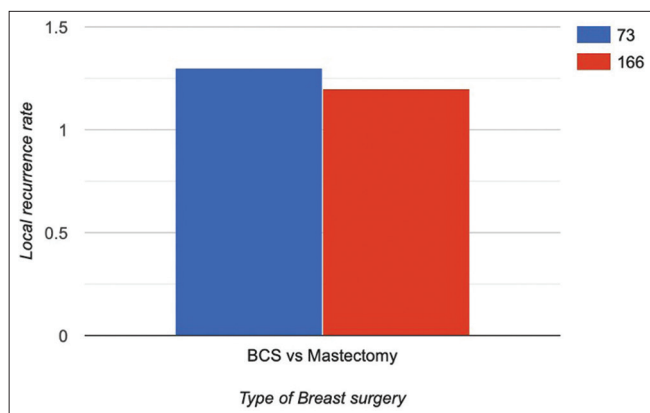


Figure 1: Local recurrence in breast-conserving surgery versus mastectomy of patients with multifocal breast cancer.

CONTROVERSIES

However, the debate concerning the optimal surgical management of MF breast cancer is far from settled. A segment of the research community cites an elevated local recurrence rate with BCS when compared to unifocal breast cancer, attributing this to factors beyond the surgical method itself, including tumor biology and the MF nature of the disease. MF/multicentric (MC) breast cancer has been considered a risk factor for prognosis, with studies demonstrating a higher incidence of lymph node metastasis compared to unifocal tumors within the same T stage, potentially leading to deleterious clinical outcomes. Age, tumor grade, hormone receptor status, and human epidermal growth factor receptor status are also known to be correlated with MF/MC breast cancer, contributing further complexity to its management.^[1]

Current studies affirm the role of BCS for unifocal breast cancer, often considered the treatment of choice for women with stage I–II breast cancer. Yet, the role of BCS in MF/MC breast cancer has been contested, with some data indicating less effectiveness in reducing local recurrence compared to its application in unifocal cases. It remains undetermined if this is due to MF/MC breast cancer inherently featuring a high local recurrence risk, or if it is related to surgical method differences.^[1,2]

Despite these concerns and the ongoing controversies, an emerging consensus, backed by several studies including our own, is beginning to solidify around the effectiveness of BCS in managing MF breast cancer. These studies reveal no significant difference in local recurrence rates between BCS and mastectomy in MF/MC cases. Notably, research from Lim *et al.*^[3] and Kadioğlu *et al.*,^[4] despite their varied approaches converged on this conclusion. Our findings align with this perspective, further challenging the pre-existing paradigm and advocating for a nuanced approach to surgical decision-making in the context of MF/MC breast cancer.

CONCLUSION

Our findings not only align with the emerging body of research challenging traditional conventions but also lend a unique perspective from the context of Iraq. Our data suggest equivalent local recurrence rates for BCS and mastectomy in the context of MF breast cancer, a finding that calls for a re-evaluation of the traditional surgical approach for such cases in our region. While additional research is warranted to confirm these findings, our study contributes to the evolving narrative in the surgical management of MF breast cancer. This has potential implications for treatment strategies, possibly paving the way for less invasive alternatives for this patient population within Iraq and beyond.

Declaration of patient consent

Patient's consent not required as patients identity is not disclosed or compromised.

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Conflicts of interest

There are no conflicts of interest.

Use of artificial intelligence (AI)-assisted technology for manuscript preparation

The author(s) confirms that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

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