

THE ROLE OF MAGNETIC RESONANCE IMAGING IN PREOPERATIVE PLANNING FOR PATIENTS WITH MULTIFOCAL OR MULTICENTRIC BREAST CANCER

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INTRODUCTION

- ❖ Surgical planning and treatment of individuals with breast cancer relies on accurate assessment of,
 - Size of the primary tumour and extent of disease
 - Presence of multiple tumour foci, either within the same quadrant (multifocal) or in different quadrants of the breast (multicentric)
 - Breast Volume
- ❖ Identification of macroscopic multifocal or multicentric disease is generally considered to result in higher rates of local recurrence and thus a contraindication to breast conservation
- ❖ Traditionally based on clinical assessment and conventional imaging, role of breast magnetic resonance imaging (MRI) in multicentric breast cancer (MCBC) and multifocal breast cancer (MFBC) is not fully established
- ❖ MRI is accepted to have a role in the assessment of high-risk women, the characterisation of uncertain lesions and in the evaluation of residual disease after lumpectomy

AIMS

- ❖ Assess role of MRI in preoperative planning of women with MFBC and MCBC who are potentially suitable for breast conservation surgery (BCS)
- ❖ To survey Breast Surgeons within the unit on management of MFBC and MCBC

METHODS

- ❖ 63 women with MCBC and MFBC diagnosed between March 2014 and 2015 were identified
- ❖ Patients suitable for BCS were assessed at MDT with decision for preoperative MRI made
- ❖ Contribution of MRI to disease assessment and surgical outcome was reviewed
- ❖ Questionnaire survey was given to all Breast Surgeons in the unit to determine preferred management of conservable MCBC and MFBC

RESULTS

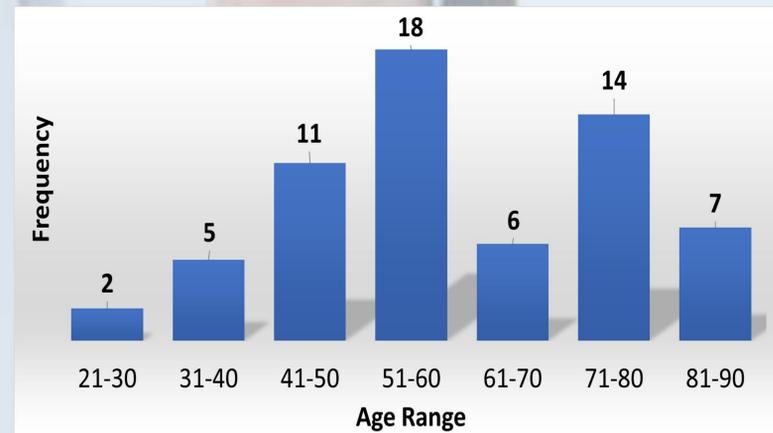


Figure 1: A Bar Chart to show the age distribution of ladies presenting with multifocal or multicentric Breast Cancer

- ❖ 23/63 women had preoperative MRI in addition to conventional imaging
- ❖ 40 ladies who did not have an MRI, 70% underwent a mastectomy and 5% underwent BCS. Remaining 25% did not undergo surgical management
- ❖ 23 women that had MRI, 48% had mastectomy and 30% had BCS
- ❖ BCS performed in all 7 patients suggested by MRI
- ❖ 86% of surgeons would perform BCS on individuals with MFBC, in comparison to 29% in MCBC

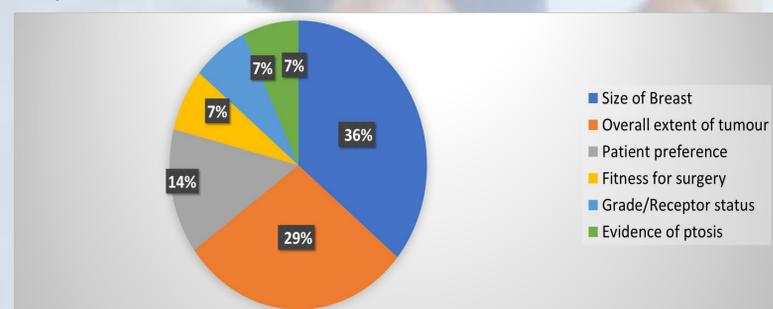


Figure 2. A Pie Chart to show the factors taken into consideration by Breast Surgeons when managing patients with potentially conservable multifocal breast cancer

CONCLUSION

- ❖ MRI correlates more closely with histological size than conventional imaging, allowing correct surgical outcome
- ❖ MRI should be used to aid surgical planning in individuals wishing to have two separate wide local excisions and avoiding overtreatment with mastectomy
- ❖ Majority of Surgeons are reluctant to perform BCS in potentially conservable MCBC
- ❖ Therefore, a cultural change amongst surgeons to support breast conservation surgery in this context is needed

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