

Medicolegal implications of advice for surgical treatment of breast cancer

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Dear Editor,

I read with interest a letter by Ngaserin et al. published in the *Annals*.¹ The acknowledgement that breast conservation treatment (BCT) for eligible women with breast cancer results in higher survival than mastectomy is heartening. There has been data since 2007 reporting that women who underwent BCT had better survival outcomes.² This early data was subsequently supported by such a significant body of evidence in the ensuing years that in 2016, Johns et al. recommended that all eligible patients should undergo BCT.³ It was also suggested that it may no longer be appropriate for such patients to be offered the choice of mastectomy, as the latter did not provide an equivalent survival outcome.³ In 2021, this treatment approach was reinforced by further cumulative data of close to 1 million patients providing robust evidence that there is a consistent benefit of overall survival in favour of breast-conserving surgery.⁴ There are more recent studies that demonstrate a survival benefit of 56–70% with BCT compared with mastectomy.⁵ Based on their findings, de Boniface et al. echoed the sentiment of Johns & Dixon,³ and stated that for breast cancer patients who are eligible for BCT, mastectomy cannot be considered to offer equivalent outcomes.⁵ A Singapore study by Leong et al. published in 2022 compared the survival outcomes of breast conserving surgery (BCS) with radiotherapy (BCT) and mastectomy.⁶ While the degree of survival advantage may not be directly comparable to that observed by de Boniface et al., an improved survival outcome with BCT was also reported in Singapore.^{5,6}

In spite of the large volume of data available to date and broad agreement among numerous researchers that BCT offers improved survival prior to 2022, it was reported in 2023 that endoscopic mastectomy was offered to women at a Singapore hospital without clear indications as to why these patients were not considered eligible candidates for BCT.⁷ It is also unclear if the patients were counselled about the chances of survival that BCT confers when they consented to endoscopic mastectomy; the ethical implications associated with this study are also unclear.

The chronology of these studies uncovers and identifies an area of possible mismatch in scientific evidence, treatment philosophy and real-life practices among Singapore surgeons. This has ramifications for patient care.

The 2022 study by Leong et al. reported a BCT rate of 53% among women with Stage I and II breast cancer, with 3% undergoing only BCS without radiation.⁶ It is worthwhile noting that these 3% of patients who did not complete radiotherapy had a significantly poorer overall survival than those who underwent BCS with radiotherapy and mastectomy. Hence, while Ngaserin et al. reported the BCS rate of 56% as low-normal,¹ the true rate of BCT for this cohort was in fact lower at 53%. In 2016, it was suggested that an ideal BCT rate should be 70%.⁸ Earlier, it was reported by Brooks et al. that 1% increase in mastectomy rate is estimated to reduce survival rate by 0.1% on a population basis.⁹ In a cohort of 3655 patients,⁶ this could mean that about 62 women would potentially have had compromised survival as a result of having undergone mastectomy. With recent data to show a 56–70% relative survival advantage with BCT,⁵ it is now suggested that a suboptimal BCT rate may compromise population survival to an even greater extent.

BCT need not be confined to women with Stage I and II breast cancer. There is ample data reporting that selected women with larger tumours (>5 cm) and those with locally advanced breast cancer (LABC) can undergo BCT without survival detriment.¹⁰ However, there is a paucity of Singapore data on a large scale to understand BCT rates for LABC, as women with these tumours were not included in the initial randomised controlled trials comparing BCT with mastectomy. In the context of current robust data that demonstrate favourable outcomes with BCT, it would be extremely useful to know the BCT rates for this group of women with large tumours and LABC, and how this new data would contribute further to BCT rates and patient survival outcomes.

The survey performed by Ngaserin et al. is commendable.¹ However, it does raise medicolegal

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issues. In light of available data dating back to 2007, suggesting better survival outcomes with BCT, together with large volume of data allowing strong conclusive statements supporting BCT in 2021,³⁻⁵ it is of considerable concern that in a survey performed in 2023, none of the 22 surgeons surveyed in this study would advise their patients that BCT offers better survival than mastectomy. With such a large body of evidence providing ample support of BCT, the medicolegal implications for this manner of patient communication and education are highly worrying, to the point of being alarming. This is especially so with the introduction of legal tests requiring doctors to detail available treatment options. While patient autonomy is important, Johns & Dixon suggested that surgeons may be abrogating their duty by offering mastectomy as an option to BCT-eligible patients.³ There is therefore now a pressing need for further research to identify and understand firstly, the reasons why surgeons who treat women with breast cancer, surveyed in 2023, do not inform patients of the fact that in the majority of cases, BCT leads to better survival. Second, in light of such robust evidence in existence for several years in favour of BCT, why merely half of Singapore surgeons would choose BCT for patients who are BCT-eligible candidates. This raises the possibility of apparent lapses and gaps in Singapore physician acknowledgement and acceptance of robust clinical evidence.

Perhaps it is time that we, as a surgical community, evaluate how we can be educated to recognise best practices and adopt them expeditiously and safely. Having done a survey among Singapore surgeons, the best physician group to spearhead positive change would be Ngaserin et al. Only then can the gap between current evidence and clinical practice be rectified and addressed, so that we will be able to do our patients the justice of offering appropriate surgical intervention and treatment for optimum survival.

Ethics statement

Not applicable given no participant involvement.

Declaration

The authors declare there are no affiliations with or involvement in any organisation or entity with any financial interest in the subject matter or materials discussed in this manuscript.

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