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Viewpoint: Availability of oestrogen receptor and HER2 status for the breast multidisciplinary meeting discussion; time to get it right

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Abstract

The efficacy and pivotal role of the multidisciplinary meeting (MDM) in informed decision making is well established. It aims to provide a forum in which clinical evidence combines with individual patient data to create a personalized treatment plan. It does not fulfil this role adequately when undertaken without the full results of the patient's investigations being available. Neither doctor nor patient can make an informed decision about treatment options without knowledge of the tumour receptor status. Both targeted therapies and the aim to treat a majority of patients within clinical trials must now drive MDM decision making to be based on accuracy and best available treatment choices. A fully informed decision on treatment delayed by 1–2 weeks is clearly preferable to rushed time target-driven decisions made without the patient being offered a fully informed choice as ratified by a multidisciplinary team. Whilst the early anxiety of waiting for all relevant information to be available may be stressful for patients, not being sure that they have been offered fully informed treatment choices is also stressful and could cause longer lasting anxiety both during and after treatment. MDMs need to develop (along with targeted therapies) to retain their role as a forum whereby patients receive a correct, but specifically a full diagnosis and allow a fully informed discussion of all treatment options, including pre-operative clinical trials.

Keywords: Breast cancer; MDM; Receptors; Decision making; MDT; Clinical trials

Introduction

The purpose of the breast multidisciplinary meeting (MDM) is to ensure that patients with suspected breast disease and who have undergone full triple assessment (clinical examination, imaging, needle biopsy) receive the correct diagnosis and advice regarding management.[1] MDMs are a forum for promoting evidence-based care and are widely accepted as a part of standard cancer treatment. The 1995 Calman–Hine plan outlined radical reform of the UK's cancer services with the aim of improving

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outcomes and reducing inequalities in NHS cancer care. Its main recommendation was to concentrate care into the hands of site-specialist multidisciplinary teams and thus the compulsory MDM was born. In the United Kingdom, it is a mandatory requirement that the care of all breast cancer patients is managed through breast MDMs.

The efficacy and pivotal role of the MDM in informed decision making is well established. It aims to provide a forum in which clinical evidence combines with individual patient data to create a personalized treatment plan. It does not fulfil this role adequately when undertaken without the full results of the patient's investigations being available. When breast MDMs first took place in the UK, mammograms and fine needle aspirate (FNA) cytology results were often the only data available for diagnostic treatment discussions and the patient was not discussed at the MDM until the reports on these investigations were ready.

It is now mandatory to report oestrogen receptor (ER) expression and HER2 status, which form part of the invasive breast cancer pathology minimum dataset because of their critical impact upon clinical treatment strategy decision making.[2,3] Neither doctor nor patient can make an informed decision about treatment options without knowledge of the tumour receptor status. Appropriate consideration of neoadjuvant treatment and clinical trial entry can be overlooked in an MDM and not subsequently offered to patients without tumour receptor status being available for the MDM discussion. Unfinished discussions and the onus on individual clinicians to make treatment decisions in subsequent clinics may lead to lack of uniformity of management and of informed choice for patients.

The timely availability of receptor results is becoming more important with the increasing use of neoadjuvant therapy. Patient management in the neoadjuvant setting is more complex than in the traditional linear approach of initial surgery followed by non-surgical treatment. Decisions on initial patient management involve oncologists in addition to the surgical team. These will be communicated to patients by the surgical team but patients will frequently also need to see an oncologist as part of the decision making process. Decisions on neoadjuvant treatment are made under time pressure, fuelled by patient anxiety and (in the UK) cancer treatment targets. Appropriate consideration of neoadjuvant treatments is however often not possible when receptor status is unknown, which is to the detriment of optimal patient care. NICE guidance CG80[4] states 'Ensure that the results of ER and HER2 assessments are available and recorded at the multidisciplinary team meeting when guidance about systemic treatment is made' and this is still widely misinterpreted as applicable only for post surgery MDMs.

Incomplete information can also lead to deferment of this discussion until all results are available with all the implications of discussing the same patient twice. These are not just financial; there are logistical implications including time considerations and the negative impact of interrupted partial discussion of a case when incomplete results are available. An example is when a patient is added more than twice to the MDM just to discuss HER2 results. Prolonged turnaround times for HER2 testing have been recognised as an issue compromising timely patient management. Rapid testing pathways for clinical practice have therefore been proposed based upon careful evaluation of diagnostic procedures and capabilities.[5]

Finally, when a patient is discussed at an MDM without receptor status being available, but is then seen in clinic, the discussion is problematic and appropriate treatment options cannot be discussed with any certainty. Indeed there is a possibility they then may be subject to the unintended bias of the surgeon; 'patient choice' is recognized to be influenced by 'surgeon choice' and is a key feature of historic practice that the MDM structure sought to override.[6]

This paper specifically discusses UK practice but the issues are applicable internationally in any setting where multidisciplinary teams make decisions regarding breast cancer treatment. European MDMs are similar to those in the UK both in structure and function[7] and waiting times for results are similar to those in the UK.

The practice across the US varies greatly by state and academic versus non-academic practices. In large academic US practices patients do not necessarily undergo multidisciplinary discussion in the setting of a UK style multidisciplinary team meeting. Complex individual patients or one to one peer consultations frequently occur as an alternative. Individual disciplines, such as radiation oncology, may discuss every new patient planned for radiotherapy for quality assurance purposes. In small (1–2 surgeon) practices, there may be efforts to convene a weekly conference to discuss cases, although the formal MDM so familiar to the UK appears to be unusual. Timelines for reporting pathology and receptor status also vary, depending on the setting, but in general are similar to the 1–2 weeks experienced in the UK.

Neoadjuvant chemotherapy

Initially introduced for patients with inoperable, locally advanced or inflammatory breast cancer, the use of neoadjuvant chemotherapy for patients with operable early breast cancer is now well established.[8] It is as effective in terms of overall survival as adjuvant chemotherapy[9] with the additional benefits of both down-staging disease and acting as an *in vivo* assay of chemotherapy sensitivity. Multiple cycles of ineffective treatment with associated toxicity may be avoided. In defined molecular breast cancer subpopulations (e.g. HER2 positive disease) the use of chemotherapy and multiple targeted treatments has progressed to the stage where pathological complete response (pCR) rates of 50–80% are attainable, making the consideration of neoadjuvant chemotherapy and targeted therapy in certain patient subgroups of increasing clinical importance.