Expanding Role of Pathologists in Multidisciplinary Tumour Board Meetings

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An accurate diagnosis and optimal management of cancer patients require teamwork comprising of surgeons, oncologists, radiologists, pathologists, psychiatrists, nutritionists and nursing personnel[1-3]. It is vastly apparent that an optimal management of a patient with cancer is not one-man's job. It involves a comprehensive plan not only focused on a particular patient but encompassing both the development and application of novel tools for further improvement in patient care. It consists of a continuum of care points, with the involvement of many healthcare personnel and is still evolving. A multidisciplinary tumour (MDT) board provides a forum for various specialists, involved in the diagnosis and management of patients with cancer, an opportunity to exchange ideas and discuss various aspects of management for the ultimate benefit of patients[4-6]. To be effective, all specialists should be present in the MDT meetings, especially the radiologists and pathologists from the supporting team. The secondary aim of these meetings is to provide an educational tool for practising physicians as well as trainees.

MDT meetings are increasingly being used to streamline the management decisions of tumour patients worldwide. These are being used in developed countries for quite some time now. In fact, in many countries such as the UK, these are mandatory activities and are well-established. However, in many developing countries, these activities are still lacking or are in the establishing stage[7-10]. Large-scale studies assessing the influence of MDT on decision making and patient outcome are limited. More importantly, single-centre studies have found significant changes in diagnosis and treatment strategies as a result of MDT meetings[11-15].

Pathologists play an important role in the diagnosis, pathologic staging, management and prognosis of patients with cancer. They have traditionally been the most visible members of the MDT cancer care team. However, in the era of precision medicine, the responsibility of the pathologists is expanding to include the pre-clinical drug testing, evaluation of prognostic markers, triage of tissue for molecular testing, evaluation of predictive markers and many other emerging roles. In addition, the pathologist may play a role in the determination of clinical trial eligibility, on the basis of pathologic findings and molecular test results, and the assessment of the quality of clinical care, for example, the number of lymph nodes retrieved and the completeness of mesorectal excision in colorectal cancer resections. Given these various activities, it is not surprising that a large part of the pathologist's work is spent on oncology-related clinical care activities. To cite an example, in the Canadian system, it has been reported that two-thirds of anatomic pathologists' time is spent in oncology-related activities in cytopathology and surgical pathology[1-5].

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It is known without doubt that an effective MDT activity must always include at least one pathologist. In the past, the role of the pathologist was to present anatomic pathology findings, including type and grade of the tumour. Presentation of the pathologic staging at tumour boards has been a particularly important role. The contributions of the pathologists in this regard have not decreased, but pathologists are increasingly playing an important supporting role in the determination of treatment options by providing expert consultation on the use and interpretation of advanced molecular testing[3,7,9].

Increasing demands on pathologists' time spent in cancer-related activities are compounded by a potential shortage of pathologists, partly due to the retirement of older pathologists and an insufficient number of new doctors entering the system. This gap in demand and supply of the pathologists is a global problem and is being witnessed even in western countries.

One of the most important roles of the pathologists is in the assessment of the quality of the cancer care programs. In collaboration with surgeons, the pathologists play an important role in determining the overall quality of cancer programs for particular tumour types. To cite an example, in 2008, the Commission on Cancer (CoC) introduced Quality of Cancer Care Measures specifying that at least 12 regional lymph nodes should be removed and pathologically examined for resected colon cancer specimen. Because the number of lymph nodes recovered from colon cancer resection specimens may reflect the quality of the surgical resection or of pathologic examination, or both, plus characteristics of the patient and the tumour, this measurement was intended to be used at the hospital or systems level and was not intended for application to individual physician performance. Such standards provide valuable benchmarks for cancer programs for comparison with similar programs. Of 23 CoC quality measures, six rely on the pathologic assessment of the resection specimens, highlighting the crucial role of pathologists in the overall quality of the cancer program[6,10,12].

MDT meetings are now being conducted in various tertiary care hospitals of Pakistan. A 2-year audit of city tumour board, Karachi, was published in 2013[15]. They concluded that each and every tumour should be discussed in MDT meeting for choosing the best available treatment option[15]. However, this conclusion is still contentious and there is no consensus on this issue[8].

In conclusion, the pathologists occupy an ideal position to intersect the cancer care continuum at multiple points, from drug development and clinical trials to diagnosis, advanced molecular testing, and participation in quality measures. The role of pathologists on a modern MDT team has extended beyond participation in local tumour boards and now impacts most phases of care of the cancer patient. A close liaison between pathologists, oncologists, and members of the MDT team will continue to play an important role in enhancing cancer care.

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