

Head and Neck Cancer: Multidisciplinary Approach is a must, Including Radiation Oncologist and Anaesthesiologist

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Head and neck cancer comprises a heterogeneous group of tumours, which optimal management requires a multidisciplinary approach. Surgery and radiotherapy are the major treatment modalities, combined with different chemotherapy schemes. The increased specialisation and complexity of knowledge has led to the introduction of Multidisciplinary Teams (MDT) for the management of these patients. MDT pursues to ensure that all patients will benefit from the knowledge of a variety of specialists, who can share their expertise, professional perspective, and knowledge [1-3]. These teams are formed by doctors (surgeons, clinical and radiation oncologist, pathologist, radiologist), clinical nurse specialist, dietician and speech and language therapist. Adequate documentation and staging of head and neck tumours must include a verbal description, accurate measurement, diagrammatic representation, photographic recording and appropriate radiological imaging. Projection equipment for computer-generated images provides the same information for all members of group [4]. Radiologists have a clear role in this duty, and nowadays MDT should include an anaesthesiologist to improve the operative outcome.

MDT was originally introduced in cancer care provision in the UK in the mid1990s and has become the model of care in many countries. Initially MDT aims to ensure all patients achieved up-to-date treatments provided by relevant professionals with specialist knowledge and skills. An additional aspiration is to ensure continuity of care for all patients for each stage in the treatment process, as well as the offer of adequate information and support [5]. Some surveys have showed that a multidisciplinary tumor board, particularly in managing head and neck cancer tumours, affect diagnostic, treatment decisions and outcomes in a significant number of patients [6,7].

Radiation oncologists, one of the team members, play an essential role in head and neck cancer treatment. Customized radiation fields and appropriate doses/fractionation with accurate techniques for each clinical situation are key to control head and neck tumours. Over the past 10-15 years, radiation therapy has undergone a transformation due to the appearance of new technological improvements and treatment techniques; for example, digital imaging, complex immobilization and verification systems, intensity modulated radiotherapy, Image guided radiotherapy, intra and extracranial radio surgery, tomotherapy and hypofractionation [8,9]. These technical advances in radiotherapy have improved the treatment of head and neck squamous cell carcinomas. The most noticeable benefit has been a reduction in long term morbidity. Among these new techniques, the Intensity Modulated Radiotherapy (IMRT) and their different variations constitute a new era in this field. IMRT is the standard of care in the treatment of HNSCC based on level 1 evidence. However, these benefits come with a serious and sobering price. IMRT is associated with an increase in total costs; however, some surveys, which compare this new technique versus conventional radiation therapy, have shown that IMRT strategy appears to be cost-effective compared with conventional or three-dimensional radiotherapy [10-14].

After reviewing these major factors, all this technology and investment can be worthless, if professionals obviate the previous

steps: the clinical story, the thorough and joint physical exploration and the multidisciplinary team assistance. Target volume design is crucial and it should be delimited by the radiation oncologist after providing all this complete information. These data come from as such as image tools as possible and multidisciplinary team opinions. There is a greater chance of missing part of the tumour due to Uncertainties in target volume definition by the clinician that is demanded by the highly conformal planning process involved with IMRT [15-17]. IMRT can deliver a high dose to the target volume while preserving the tissue function of neighbouring structures. Radiation oncologists must prioritize including in their delimitation work the entire tumour volume. To achieve this goal, we suggest starting the multidisciplinary management before making any treatment decision, especially before surgery or chemotherapy. Physical examination should be done by the team; in order to assure the extent of primary tumour and the neck status before any treatment. Patients should be present in the meeting to be explored and even to be involved in decisions about their treatment [18]. Many cancer patients wish to play a more active role in their treatment; nevertheless, the current structure of cancer MDT meetings makes patient participation difficult to achieve.

The anaesthesiologist must be involved in the preoperative preparation, including respiratory and nutritional optimization to improve outcome [19]. Limiting per operative opioids with the use of loco-regional anaesthesia, during surgery and in the postoperative, seems to improve long-term survival [20]. Efficiency will be achieved with the accurate implementation of the MDT culture, where everyone will participate actively in all decisions. In conclusion, the MDT's approach should be a must in the management of head and neck tumours and not an option.

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