EDITORIAL

PLAN OF RADIOTHERAPY MANAGEMENT OF HEAD AND NECK CANCER

Provision of healthcare for head and neck cancer patients presents a particular challenge because of the complexity of the anatomical structures and functions affected, the variety of professional disciplines involved in caring for patients, and the specialised forms of therapy and support required in the various stages of management (1). There are over 30 specific sites (ICD10 codes) categorised under head and neck cancer, and co-morbidities such as respiratory or cardio-vascular conditions are common (2). Over 90% of malignancies occurring in the head and neck are squamous cell carcinomas (HNSCC) (3).

In this issue of the journal, Solomon *et al* (4), examines the negative impact of treatment interruptions on one of the modalities of head and neck cancer treatment, namely radiotherapy. In addition to radiation morbidity, external factors such as financial difficulties, transport problems and negative attitudes towards radiotherapy are known to adversely influence the continuity of patients' treatment. Technical issues such as mechanical breakdowns and inefficient procurement systems also contribute to unscheduled treatment interruptions, particularly in developing countries where radiotherapists often provide services in resource-limited situations (4, 5, 6).

Radiotherapy is a well established mode of therapy for HNSCC, either as an adjuvant to surgery and chemotherapy or as the main treatment option. However, treatment interruption and early discontinuation raises the possibility of recurrent disease which may in some cases be more aggressive than the primary condition (7, 8). Increased tumour aggression after the commencement of radiotherapy has been attributed to rapid repopulation of the malignancy by means of accelerated proliferation of tumour stem cells (9).

The options of altered fractionation regimens, synchronous chemoradiation and 3D conformal treatment were designed to minimize occurrence of complications during the irradiation of local or regional lesions. In centres where these alternatives are not available, radiation-associated morbidity is a frequent cause of treatment interruptions in patients undergoing treatment for head and neck cancers (10). Solomon and co-authors provide a critical evaluation of patients undergoing radical radiotherapy at Kenyatta National Hospital, reporting that the most important common cause of treatment interruption and/ or discontinuation is indeed radiation morbidity (4).

The paper does not however investigate the factors that contribute to this situation in the national referral hospital. A report of frequent and prolonged treatment interruptions among patients undergoing radiotherapy at a tertiary healthcare institution has significant implications for the management of all radiosensitive cancers. Further research and consultation is urgently needed so as to develop evidence-based methods of improving treatment compliance by reducing the frequency and severity of the side effects.

Pre-treatment assessment of the HNSCC patient requires a specialised diagnostic sequence, with imaging techniques and pathological assessment used as an integral part of diagnosis and staging of the cancer. Treatment modalities are mainly determined by the clinical stage of the disease, the site of the primary lesion and the general health of the patient. The cost of this comprehensive medical care is prohibitive to most patients, causing many to seek treatment when the cancer is at an advanced stage. Management of a more aggressive TNM Stage 3 or Stage 4 malignancy implies a poorer prognosis, and is bound to cause further strain on the healthcare limited resources.

The issue of lack of expertise also contributes to the poor prognosis for HNSCC. A complete multidisciplinary team for management of head and neck cancers includes a diverse group of experts including maxillofacial surgeons, ENT specialists, Ophthalmologists, Neurologists, Pathologists, Radiologists, Nutritionists, Prosthodontists, Nurses, Psychologists, Anaesthetists and Physiotherapists. This level of proficiency is scarcely available in many urban centres in Africa, and is completely inaccessible in rural areas.

In addition, peak incidences of head and neck cancers range from the 5th – 7th decades of life, although the incidence in younger age groups is on the increase worldwide. Elderly head and neck cancer patients exhibit different clinical characteristics and experience different patterns of care from younger patients. Effective management of geriatric patients with this condition would therefore involve additional expenses (11). It is perhaps due to such logistical problems that global five-year survival rates for head and neck cancers have remained at 35 – 50% over the past three decades despite efforts to improve treatment outcomes (12).

Primary approaches have been emphasised as the most cost-effective mode of cancer management. However, public health campaigns on the factors that contribute to head and neck cancers are almost non-existent in the developing world, while habits such as cigarette smoking and alcohol consumption

continue to increase the incidence of the disease (13). Given that HNSCC is a preventable condition, the public should be constantly exposed to information on methods of risk reduction and early signs of disease.

Finally, the training and equipping of medical personnel should be strategic so as to facilitate the functioning of oncology teams in tertiary medical centres and teaching hospitals. In this regard, the various medical sub-specialties currently managing HNSCC should be commended for the outcomes achieved despite the limited resources available. Further research and consultation is imperative for the development of effective and co-ordinated care for head and neck cancer cases in this region.

E.A.O. Dimba, BDS, PhD, FRb; Lecturer, Department of Oral and Maxillofacial Surgery, Oral Pathology and Oral Medicine, School of Dental Sciences, University of Nairobi, P. O. Box 19676 – 00202, Nairobi, Kenya

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