

The empowerment of all modalities against cancer

Shuting Han¹, MBBChir, MRCP, Han Chong Toh^{1,2}, MBBChir, FRCPEd

Vita brevis, ars longa, occasio praeceps, experimentum periculosum, iudicium difficile. *“The art of medicine is long, Hippocrates tells us, and life is short; opportunity fleeting; the experiment perilous; judgment flawed.”*

– Dr Siddhartha Mukherjee, *The Emperor of All Maladies: A Biography of Cancer*

In this modern era of omics, personalised medicine, big data and artificial intelligence, and with the rise of cancer immunotherapy and other designer therapeutics, it is often easy to overlook the corners of medicine that are less cutting edge. Simpler modalities with significant impact on diagnostics, handy interventions that potentially improve outcomes, and measures that extend the benefits of care to patients’ families are examples of efforts that should not be trivialised in the face of more progressive innovations. This themed issue of the *Singapore Medical Journal (SMJ)* showcases some of these efforts in the field of oncology.

We recently had the opportunity to appreciate the caregiver’s experience through our discussion with the daughter of a hospitalised terminally ill patient. Compassionate and filial, she communicated her struggles to cope with her father’s care while battling her own chronic illness. Her anxiety grew as she watched her father deteriorate despite treatment and his worsening depression. She shared many concerns – her lack of confidence about looking after her father as he became more dependent, his ambivalence about the advance medical directive and fears that his end journey would be filled with pain and suffering. In this issue of the *SMJ*, Karabekiroğlu et al’s study⁽¹⁾ reminded us of a commonly underemphasised dimension of managing cancer patients – paying attention to the caregiver, who often undergoes more psychosocial stress and burnout than the patient. The context of this study, set in Turkish society, also highlights the psychosocial and cultural nuances of patient-caregiver dynamics.

A young thyroid cancer survivor in his thirties asked about his brother, who was also discovered to have a thyroid nodule. The surgeon recommended to either perform fine needle aspiration and cytology or frozen section under general anaesthesia, with a potential thyroidectomy if the nodule was deemed to be malignant. While certain imaging features of thyroid nodules are associated with malignancy, there is no single radiological predictor for thyroid cancer. In another article in this issue, Chng et al⁽²⁾ compared the sonographic correlates of thyroid nodule characteristics against international guidelines that may improve diagnostic accuracy, avoid over investigation and over treatment of thyroid nodules.

Vestibular schwannomas (VSs) are rare. The first author of this editorial has two friends living with this benign tumour who

took different paths in management. Both had tinnitus. One had additional hearing loss and opted for radiosurgery. The other focused on diet, exercise and other lifestyle modifications for the past few years, during which a durably stable lesion was seen on repeat imaging with no progression of symptoms. Wong et al⁽³⁾ described in detail their single-institution series of 77 VSs treated with radiosurgery and provided a concise, comprehensive review of the management of VS. Publishing treatment outcomes of uncommon diseases is a useful contribution to the cumulative global body of literature.

Prostate cancer has seen a sharp rise in incidence to 30 per 100,000 men in Singapore, a fivefold increase in the past four decades,⁽⁴⁾ with an equally impressive development of therapeutic options leading to prolonged survival. In the current issue, Sheng et al⁽⁵⁾ discussed the potential role of cryosurgery performed under local anaesthesia in addition to androgen deprivation therapy in bone metastatic prostate cancer patients. This is a potentially well-tolerated local therapeutic option that could improve outcomes, including quality of life, for symptomatic patients. However, the study is small and would require validation in larger series to evaluate the long-term efficacy and outcome.

The increasing awareness of cancer among the general population as a result of the mass media, including the constant messaging – ‘one in three persons is diagnosed with cancer’ – can generate anxiety among individuals, who may seek professional advice about potentially cancerous, sometimes almost imperceptible, blemishes on their skin. From mild benign naevi to subungual haematomas, and the odd ‘lumps and bumps’, diagnosing skin cancer may prove challenging to the uninitiated. Bsirini and Smoller⁽⁶⁾ described melanoma mimics and how a more precise and granular clinicopathologic assessment can more accurately distinguish a benign skin lesion from an aggressive, potentially fatal cancer. A missed cancer has devastating consequences and, unfortunately, can lead to possible litigation. Today, digital imaging via artificial intelligence-based technology, such as deep learning convolutional neural networks, can even outperform dermatologists in the diagnosis of skin melanoma.⁽⁷⁾

Another underappreciated area of cancer management is laboratory medicine. Yeo and Ng⁽⁸⁾ reviewed the current and evolving platform of blood biochemistry tests in a busy, high-volume hospital. They emphasised that improving systems integration, including information technology, automation and maximal manpower utilisation, delivers the most effective, cost-efficient outcomes. Consistently reliable, rapidly processed laboratory test results are not only critical in diagnostics and immediate clinical management, but also contribute to improved care and the reputation of healthcare institutions.

¹Division of Medical Oncology, National Cancer Centre Singapore, ²Duke-NUS School of Medicine, Singapore

Correspondence: Dr Han Shuting, Senior Resident, Division of Medical Oncology, National Cancer Centre Singapore, 11 Hospital Drive, Singapore 169610. Han.shuting@singhealth.com.sg

Cancer is complex and best managed in a multidisciplinary setting by highly trained specialists with the supportive pillars of palliative care, cancer survivorship programmes and psychosocial oncology. The age-old adage 'prevention is better than cure' rings true. Guidelines-driven cancer screening, preventive measures and solid diagnostics will remain the cornerstones of cancer management.

In the 21st century, the majority of cancer patients still reside in developing countries, where access to tertiary oncology services remains limited. Maximising the utility of available clinical and practical technological tools is especially vital in the frontline of medicine outside of tertiary academic medical centres. The empowerment of all modalities against cancer is an equipoise between the traditional and the cutting edge, the sophisticated and the simple – an ideal marriage between the art and the science of medicine.

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