Hematology Meeting Reports 2007; 1(5):1–2

Introduction

Emili Montserrat
Christos Emmanouilides

The symposium *Changing the Paradigm: New Perspectives in the Treatment of Haematological Malignancies* examined the latest developments in the management of chronic lymphocytic leukaemia (CLL) and non-Hodgkin's lymphoma (NHL).

The traditional management of CLL has been aimed at palliative care in patients with symptomatic disease, since treatments were not able to offer cure. However, recent developments are producing a shift towards a curative approach. Eradication of detectable CLL cells is becoming a realistic goal of therapy. Combination therapies such as fludarabine and cyclophosphamide administered as first line treatment are associated with significantly higher response rates than single-agent therapy with standard agents like chlorambucil. A proportion of patients, particularly those with CLL clones containing p53 defects (mutation/deletion of the p53 gene encoded at 17p13), fail to achieve remission or relapse. Fortunately, the anti-CD52 monoclonal antibody alemtuzumab produces high response rates in patients refractory to or with relapse after purine-based therapy and completely eradicates detectable minimal residual disease (MRD) in a significant proportion of patients. MRD negativity has been shown to be associated with increased survival compared with patients who remain MRD-positive. The combination of fludarabine and alemtuzumab (FluCam) is highly effective, producing high complete response rates and MRD negativity in a large proportion of patients. These developments together with progress in identifying molecular markers of prognosis allow highly effective patient-stratified treatment approaches.

Despite important advances, chemotherapy in NHL is less than ideal, since relapse rates are high and no single therapy definitively increases survival rates. Immunotherapy, either in the form of allogeneic stem cell transplantation or monoclonal antibody-mediated cytotoxicity, is a promising new approach and since the lymphomas are inherently radiosensitive, radiolabelled immunotherapy offers new hope for increasing patient survival.

Yttrium-90 (^{90}Y)-labelled ibritumomab tiuxetan, the first commercially available radioimmunotherapeutic agent for follicular B-cell NHL, combines the antibody-mediated tumour cell lytic activity of a murine anti-CD20 monoclonal antibody with the targeted delivery of a pure

beta radiation source to B lymphocytes. ^{90}Y-ibritumomab tiuxetan produces high response rates in patients with relapsed or refractory low-grade, follicular or transformed follicular lymphoma and induces remissions of more than 5 years duration in some patients. Being a pure β-emitter with a short half-life of 64 hours means it can be administered in an outpatient setting and thus cause minimal disruption to a patient's normal activities. Early second-line use of ^{90}Y-ibritumomab tiuxetan is more effective than 'later' use and does not preclude subsequent use of other therapies. It is also currently being assessed for the treatment of aggressive lymphomas, such as refractory diffuse large B-cell lymphoma, and as a replacement for total body irradiation as part of conditioning regimens prior to stem cell transplantation.

Throughout the symposium, the expert guest speakers discussed these topics in depth, providing the latest insights into the management of CLL and NHL, as evidenced in the following summaries of the seminars.