Chairman's introduction

Malignant lymphomas are the group of neoplasms where the most significant advances have been made in recent years with respect to our understanding of the pathogenesis, the application of modern diagnostic tools, and therapeutic progress. Malignant lymphomas may therefore serve as a paradigm for what we hope can be achieved in other malignant diseases in the next few years. The target group for this educational issue is not specialists in lymphoma diagnosis and treatment; rather it should provide valuable information to any physician and researcher dealing with malignant diseases.

The establishment and use of modern diagnostic techniques such as immunophenotyping, molecular genetics and DNA microarrays has revolutionised our understanding of these diseases and has had a substantial impact on our diagnostic and therapeutic standard procedures. The chapter on genetics, biology and classification of malignant lymphomas by Dr. Poppema describes how these modern techniques have served as a means for defining objective criteria for the discrimination between different lymphoma entities and subgroups and were a prerequisite for the new World Health Organization (WHO) classification [1]. This classification is the first that has met global acceptance, and for the first time in lymphoma history has provided pathologists and clinicians with a common language. This common language should further accelerate the ongoing progress in the treatment of lymphomas. The analysis of gene expression by DNA microarrays should allow further fine tuning of biological subgroups and hence a more individually tailored therapy [2].

Chemotherapy, which is now the mainstay of our therapeutic armamentarium, played only a minor role until 40 years ago, when it started to first complement and then substitute radiotherapy as the major treatment modality of lymphomas. The triumphal procession of chemotherapy has led to the abandonment of radiotherapy as part of the therapeutic concept in aggressive lymphomas by many study groups, and many long-accepted indications for radiotherapy of indolent lymphomas have recently been questioned. Dr. Gospodarowicz describes this development and shows ways in which the role of radiotherapy in the modern management of malignant lymphomas can be defined more precisely.

After nearly two decades without significant progress, treatment results have significantly improved in recent years. This has been demonstrated unequivocally for defined subpopulations, i.e. elderly patients with aggressive lymphomas, and we can expect that similar improvements can be shown for younger patients. While long-term results are still pending, there is suggestive evidence that significant progress has also been made in the treatment of indolent lymphomas. Dr. Coiffier describes current approaches to the treatment of follicular and mantle cell lymphomas and shows that, for the first time, cure of these entities appears to be a realistic goal. Besides monoclonal antibodies, such as the anti-CD20 antibody rituximab, the use of autologous and allogeneic stem cell transplantation appears to be an important tool for the achievement of this goal.

In contrast to indolent lymphomas, about half of the patients with aggressive lymphomas can be cured by intensive chemotherapy protocols, as I describe in my article. While CHOP (cyclophosphamide, doxorubicin, vincristine, and prednisone) given every 3 weeks has been the standard for many years, recent trials show that reduction of treatment intervals from 3 to 2 weeks and/or the addition of rituximab represent significant progress [3,4]. However, there is still a long way to go until cure rates close to 100% can be achieved in adult patients with malignant lymphomas, cure rates that are common in children with malignant lymphomas. Dr. Patte describes how these high cure rates in children have been achieved and discusses if and to what extent the experiences of paediatric oncology can be transferred to the treatment of adult patients with malignant lymphomas.

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References

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