

Preface

Myelodysplastic syndromes (MDS) are the most common hematological malignancies involving mainly the elderly. They are defined as clonal stem cell disorders and characterized by ineffective hematopoiesis involving one to all bone marrow cell lineages [1]. The dominant morbidity of MDS relates to symptomatic cytopenias.

According to various reports the annual incidence of MDS ranges widely from 2 to 12 per 100,000, increasing to 30–50 cases per 100,000 among persons aged 70 or older. It is believed that the true incidence of MDS has been underestimated and appears to be comparable to that of multiple myeloma and chronic lymphocytic leukemia [2, 3].

MDS may arise *de novo*, or as a result of previous environmental damage, or chemo- or radiotherapy with a peak incidence at 2–4 years following the initial exposure [4]. It might therefore be hypothesized that MDS arises due to cumulative environmental exposure in genetically predisposed individuals [5]. MDS may be regarded as a progression model in which the acquisition of genetic events occur by gain or loss of genetic material.

MDS was previously named “preleukemia” or “smoldering leukemia” with a lack of terminal cells due to high apoptosis rate and the subsequent failure of differentiation. In about 25% of all cases when MDS progresses to AML—stem cell apoptosis stops and the cells fail to differentiate, a process that has been widely studied. In the past decade much progress had been achieved. We know more about disease pathophysiology resulting in increased emphasis on patient care and the evolution of targeted therapy.

The chapters of this book offer updated knowledge on all clinically important aspects of the disease. Topics of great current interest are discussed by leading authors on MDS from different parts of the world. We would like to recommend this book to all those interested in this exciting and rapidly expanding field of hematology, including medical students and postgraduates.

Although MDS is a clonal disease it is not yet recognized as a malignant disease by the majority of health care systems. Consequently, access of MDS patients to novel, expensive and targeted therapeutic modalities is generally unsatisfactory. It is hoped that the present volume will increase awareness of the necessity of opti-

mal treatment beyond simple supportive measures and facilitate the introduction of optimal treatment adequately sponsored by decision makers in health care systems.

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