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Hodgkin's Lymphoma: Biology and Treatment Strategies for Primary, Refractory, and Relapsed Disease

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Abstract

Hodgkin's lymphomas belong to the most curable tumor diseases in adults. About 80% of patients in all anatomical stages and of all histological subtypes can be cured with modern treatment strategies. In spite of the great clinical progress, the pathogenesis of this peculiar lymphoproliferative entity has not been elucidated completely up until now.

In Section I Drs. Stein, Hummel, and Zollinger describe the different pro-proliferative and antiapoptotic pathways and molecules involved in the transformation of the germinal center B-lymphocyte to the malignant Hodgkin-Reed-Sternberg cell. They use a comprehensive gene expression profiling (Affymetrix gene chip U133A) on B- and T-Hodgkin cell lines and state that the cell of origin is not the dominant determinant of the Hodgkin cell phenotype, but the transforming event. H-RS cells lack specific functional markers (B-T-cell receptors) and physiologically should undergo apoptosis. Why they do not is unclear and a matter of intensive ongoing research.

In Section II Dr. Diehl summarizes the commonly used primary treatment strategies adapted to prognostic strata in early, intermediate and advanced anatomical stages using increasing intensities of chemotherapy (two, four, eight courses of chemotherapy such as ABVD) and additive radiation with decreased doses and field size. ABVD is without doubt the gold standard for early and intermediate stages, but its role as the standard regimen for advanced stages is challenged by recent data with time- and dose-intensified regimens such as the escalated BEACOPP, demonstrating superiority over COPP/ABVD (equivalent to ABVD) for FFTF and OS in all risk strata according to the International Prognostic Score.

In Section III, Dr. Connors states that fortunately there is a considerably decreased need for salvage strategies in Hodgkin's lymphomas since primary treatment results in a more than 80% tumor control. Nevertheless, a significant number of patients experience either a tumor refractory to therapy or an early or late relapse. Therefore, one of the continuing challenges in the care for Hodgkin's lymphomas today is to find effective modes for a second tumor control. High-dose chemotherapy followed by autologous stem cell support has proved to be the treatment of choice when disseminated tumors recur after primary chemo- and or radiotherapy. Nodal relapses respond well to local radiation when they recur outfield of primary radiation without B-symptoms and in stages I–II at relapse. Allogeneic stem cell support needs further intensive evaluation in controlled studies to become an established alternative.

Topics: bleomycin/dacarbazine/doxorubicin/vinblastine protocol, chemotherapy regimen, hodgkin's disease, radiation therapy

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Abstract

I. Classical Hodgkin's Lymphoma: Gene Expression Profiling And Biologic Risk

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I. Classical Hodgkin Lymphoma: Gene Expression Profiling And Biologic Risk

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