B-SYMPTOMS, BCL-6 AND BCL-2 PROTEIN EXPRESSION DEFINE A POOR PROGNOSIS GROUP IN NODULAR SCLEROSIS HODGKIN'S DISEASE PATIENTS

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Aims: To assess the prognostic significance of approximate immunohistochemical surrogate markers for "follicle centre" (Bcl-6) and "activated B-cell"phenotype (CD138 and Bcl-2) in neoplastic Hodgkin (HD) cells as well as markers of microenvironment modulation (Bcl-2 expression in cells immediately surrounding HD cells) and compare it to the prognostic significance of the presence of B-symptoms.

Methods: Paraffin sections, available from 95 of 150 nodular sclerosis Hodgkin's disease patients diagnosed in Zurich from 1991 to 1997, aged between 16 and 60 years, were stained on a Ventana Nexes module for Bcl-2 (Dako clone 123, 1:20), Bcl-6 (Dako clone PG-B6P, 1:20) and CD138 (Dako clone MI15, 1:30). Mean follow-up time was 80 months, 10 of 95 patients died, all deaths were disease specific.

Results: HD cells stained positive for CD138 in 0% of cases (0/95), positive for Bcl-6 in 31% of cases (29/95), positive for Bcl-2 in 84% (80/95). All ten deaths were among the 66 patients negative for Bcl-6, the 80 patients positive for Bcl-2, the 53 patients whose HD cells stained both positive for Bcl-2 and negative for Bcl-6, among the 63 patients in which less than 50% of cells immediately surrounding HD cells stained positive for Bcl-2, and the 38 patients who initially presented with B-symptoms. 18 patients regrouped all negative prognostic factors, defining a subgroup of patients with less then 50% long term survival ($p<0.0001$).

Conclusion: In a group of nodular sclerosis Hodgkin's disease patients with a very good overall survival the coincidence of Bcl-2 expression, a lack of Bcl-6 Expression, reduced (<50%) Bcl-2 expression surrounding HD cells and B-symptoms defines a group with a very bad prognosis.