PROGNOSTIC SCORING SYSTEM FOR PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMAS (PCNSL): THE I.E.L.S.G. PROPOSAL

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Apart from age and PS, reliable prognostic factors in PCNSL have not been consistently defined. Survival predictors were analyzed in an international series of 378 immunocompetent patients to design a prognostic score useful for distinguishing risk groups. Median age was 61 ys (12-85); ECOG-PS >1= 222 (65%). Involvement of deep structures of the brain (periventricular regions, basal ganglia, stem brain, and/or cerebellum) in 136 (36%) cases, meningeal spread in 38/241 (16%), high LDH serum level in 69/195 (36%), ocular involvement in 22/170 (13%), elevated CSF protein concentration in 82/134 (61%). Treatment data were not available in 8 (2%) and no treatment was delivered in 7 patients (2%), chemotherapy (CHT) in 32 (8%) cases, radiotherapy (RT) in 98 (26%), RT-CHT in 36 (9%), CHT-RT in 197 (53%). Age <61 ys (2-yr OS: 46±3% vs. 29±3%, p=0.00006), PS <2 (50±5% vs. 31±3%; p=0.00001), normal LDH serum level (49±4% vs. 29±5%; p=0.008), normal CSF protein level (61±7% vs. 39±5%; p=0.003), and absence of involvement of deep regions of the brain (42±3% vs. 28±4%; p=0.0006) were significantly and independently (Cox analysis) associated with a better outcome. A prognostic score was designed using these 5 variables, considering “0” the favorable feature and “1” the unfavorable one and summing the results. Complete data of all the 5 variables were available in 105 patients and in the subset of 75 patients treated with HD-MTX-based CHT±RT, for whom the scoring system was tested separately. In the whole assessable population, the 2-yr OS was 80±8%, 48±7% and 15±7% (p=0.00001), respectively for patients with 0–1, 2–3 and 4–5 unfavorable features. In the assessable population of patients treated with HD-MTX-based CHT±RT, the 2-yr OS of 85±8%, 57±8% and 24±11% (p=0.0004), respectively for patients with 0–1, 2–3 and 4–5 unfavorable features. Age, PS, LDH serum level, CSF protein concentration, and involvement of deep structures of the brain were independent predictors of survival. The combined analysis of these 5 variables resulted in a prognostic score useful to distinguishing different risk groups, even in patients treated with HD-MTX-based CHT±RT. The independent role of these 5 variables and the clinical relevance of the proposed prognostic score deserve to be assessed in further studies. This score could become useful in stratifying patients and comparing results in future prospective trials.