ABSTRACT #3432

PRIMARY THYROID LYMPHOMA: A RETROSPECTIVE IELSG AND IIL ANALYSIS OF CLINICAL CHARACTERISTICS, PROGNOSTIC FACTORS, TREATMENT OUTCOME AND SOMATIC HYPERMUTATION FOR LOCALIZED DIFFUSE LARGE B-CELL LYMPHOMA (DLBCL)

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We compared clinical characteristics, prognostic factors and treatment outcome of primary thyroid DLBCL (PTL) with those of other locations of primary extranodal head and neck lymphomas (PEHNL) and we further analyzed somatic hypermutation in pts with PTL. From December 1990 to June 2004, 48 PTL out of 478 PEHNL patients (pts) (10%) were enrolled in this study, including 10 males and 38 females, with a median age of 73 years (range, 34-90 years). In comparison with other locations PTL cases had more frequently advanced age (>60 yrs), female sex, bulky disease, poor ECOG-PS, elevated LDH and >1 adverse factors according to stage-modified IPI (MIPI). The commonest treatment was a short course of anthracycline-based chemotherapy (CHT) involved field radiotherapy (IFRT). Forty-two percent of PTL pts also underwent surgery. Clonal IGHVDJ rearrangements were analyzed in 17/48 cases. The CR rate of PTL pts (85%) was comparable to those of other locations. After a median follow-up of 41 months (range 1-154.months), 5-yr OS, EFS and DFS were 51%, 46% and 86%, respectively. The OS compared unfavourably with other locations (75%), while the disease-specific survival rate was similar in both groups (80%). Moreover, MIPI was not predictive of survival, probably due to a high mortality unrelated to disease (19% Vs 7%). Regarding treatment PTL pts seem to benefit more from surgery in combination with chemotherapy and/or IFRT than from other treatments not including partial or complete thyroid resection (p=0.04). Somatic hypermutation of IGHV genes was observed in the majority of PTL cases, suggesting that they derive from germinal center experienced B-cell, while the unmutated status in a fraction of pts indicates a different histogenetic and pathogenetic pathway. The significant clustering of S and R mutations in CDRs and FRs in a fraction of cases with high homologous CDR3 suggests that antigen stimulation may have an important role in the pathogenesis of these lymphomas. In conclusion, in spite of more adverse features at presentation PTL pts showed a favorable disease-specific survival, comparable to that of other PEHNL. Biological study in PTL pts suggests different histogenetic and pathogenetic pathway. The comparison of thyroid biological profile with that of other PEHNL could help to clarify the different clinical behaviour of this uncommon malignancy.