

Session I: Incidence and Predispositions to WM

Abstract 101

Presenter: M. Wang

Trend and Geographic Variations in the Incidence of Waldenström's Macroglobulinemia in the United States over 17 Years from 1988 to 2004.

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Background: Waldenström's Macroglobulinemia (WM) is an uncommon subtype of B cell malignancy. The updated trend of its incidence in the United States has not been reported. Objective: To better understand the incidence and epidemiological features of WM in the United States. **Methods:** We conducted a population-based incidence study with 1463 patients (pts) with WM identified from the Surveillance, Epidemiology, and End Results (SEER) tumor registries over 17 years. From the SEER data, 78,558 pts of all ages diagnosed with non-Hodgkin's lymphoma (NHL) were identified between 1988 and 2004 in 9 SEER areas. Of these pts, 1463 had pathologically confirmed WM, accounting for 2% of NHL. The incidence with 95% confidence intervals were generated from SEER*Stat Software and was age-adjusted to the U.S. year 2000 standard population. Annual Percent Change (APC) for the incidence was calculated and considered to be statistically significant if p value was less than 0.05. The crude 1-year survival rate was calculated as the ratio of the number of pts who survived over 1 year and the number of pts diagnosed with WM. **Results:** Of the 1463 pts with WM, median age at diagnosis was 73. Overall incidence rate was 0.37/100,000/year, which increased with age from 0.03 in pts aged <50 to 1.03 in pts aged 60-69 and 2.76 in pts aged 80 or older. The age-adjusted incidence did not change significantly from 0.34 in 1988 compared with 0.36 in 2004. Therefore was no significant Annual Percent Change (0.97%, $p > 0.05$). Incidence of WM was higher in men (0.52) than in women (0.26) ($P < 0.001$). There were substantial geographic variations ($p < 0.001$) in the incidence of WM. The age-adjusted incidence was highest in Seattle (0.49) and lowest in Atlanta (0.19). The incidence was higher in Caucasians (0.40) than in African-Americans (0.17) and other races (0.20). Annual Percentage Change was 1.3% in Caucasians ($p < 0.05$). **Conclusion:** The overall incidence of Waldenström's Macroglobulinemia did not change significantly from 1988 to 2004, and was significantly higher in male Caucasians. There were substantial geographical variations in the incidence of Waldenström's Macroglobulinemia in the United States.