

Session I: Incidence and Predispositions to WM

Abstract 102

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Prevalance of MGUS and Incidence of WM in Japan. Masako Iwanaga, M.D., M.P.H. Department of Molecular Medicine & Hematology, Atomic Bomb Disease Institute, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, JAPAN.

Recently, comprehensive epidemiological studies identified notable differences in the incidence of subtypes of lymphoid malignancies among ethnic groups. Evidence that MGUS prevalence was 2-fold higher among US blacks than US whites was confirmed by the population-based Ghanaians study in Africa. The lower prevalence of MGUS among US Asians than US whites in previous reports was confirmed by the finding of the low prevalence of MGUS in a Japanese population in our large-scaled study. In contrast, the incidence of Waldenström's macroglobulinemia (WM) was 2-fold higher among whites than blacks in the US SEER database. However, it is unclear whether the incidence of WM in Asians is higher or lower than in whites or blacks. So far, no epidemiological study of WM has been reported from Asian countries. At the meeting, I will present the epidemiological aspect of MGUS and WM in Japan. Among 52,781 atomic bomb survivors who underwent M-protein screening between 1988 and 2004, 1,088 MGUS cases were identified. MGUS prevalence was 2.4% at age 50+ years, which was lower than in whites and Africans. As a further step, we assessed the effect of radiation exposure on MGUS prevalence in 548 MGUS cases among 27,846 participants with information on exposure distance from the hypocenter. MGUS prevalence was significantly higher (3.6–4.2%) in men exposed to a higher radiation level when exposed at younger than 20 years old. WM cases were obtained from 13 population-based cancer registries across Japan using two ICD-O-3 codes, 9671/3 and 9761/3. Population estimates were obtained from the Statistics Bureau. Crude incidence rates were directly age-adjusted to the 1985 Japanese standard population. Between 1996 and 2003, a total of 280 cases (197 men, 83 women) were recorded in the registries, giving an age-standardized rate of 0.053 per 100,000 person-years (0.089 for men, 0.028 for women), suggesting a clearly lower incidence of WM in Japan than in the US (0.63 per 100,000). The median age at diagnosis was 73 years (ranges 26–96), and the age-specific incidence rates increased sharply with age, from 0.01 at <35 years to 1.43 (men) and 0.35 (women) at 85+years.