Incidence of soft tissue sarcoma and beyond: A population-based prospective study in 3 European regions.

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Mastrangelo G, Coindre JM, Ducimetière F, Dei Tos AP, Fadda E, Blay JY, Buja A, Fedeli U, Cegolon L, Frasson A, Ranchère-Vince D, Montesco C, Ray-Coquard I, Rossi CR.

BACKGROUND: The objectives of this study were to measure the incidence of sarcomas, including viscerally sited tumors that are not reported in cancer statistics, and to draw explanatory clues from a large and reliable sarcoma incidence data set.
METHODS: Cases of sarcomas regardless of primary site (except bone and joints) were collected during 2 years in 3 European regions totaling approximately 26,000,000 person-years. The sources used were pathology reports and hospital discharges forms. Diagnoses were reviewed by expert sarcoma pathologists and were classified according to 2002 World Health Organization criteria. Soft tissue sarcomas (STS) were considered those located in arms, legs, trunk, head, neck, and retroperitoneum; visceral sarcomas (VS) were considered those that arose in internal organs. Rates were age standardized using the European (ASR-E) and the USA standard population. The rate of coexistence of VS and STS was calculated by dividing the 2 corresponding ASRs.
RESULTS: There were 1558 sarcomas, 968 STS, and 590 VS. The ASRs-USA per 100,000 person-years was 5.12 × 10(5) among males and 4.58 × 10(5) among females for all sarcomas. For males and females, respectively, the ASR-E per 100,000 person-years was 3.58 × 10(5) and 2.55 × 10(5) , respectively, for STS; 1.47 × 10(5) and 1.97 × 10(5) , respectively, for VS; and 0.55 × 10(5) and 0.10 × 10(5) , respectively, for Kaposi sarcoma. The coexistence rate of VS and STS was 0.41 for males and 0.77 for females. For dermatofibrosarcoma (both sexes), uterine sarcoma, liposarcoma (females), and leiomyosarcoma, including or excluding the uterus (females), the age-specific rates depicted a curve with a rapid increasing trend until ages 40 to 50 years and little variation thereafter.
CONCLUSIONS: Compared with the incidence of STS, VS incidence made up an additional 41% in males and 77% in females. Because the shape of age-specific curves for some histotypes was similar to that of breast cancer, the authors concluded that sex hormones (plus many chemicals that act as endocrine disruptors) may be involved in carcinogenesis. This evidence could pave the way to investigate alternative treatments and to explore etiology.