

Cancer Statistics Digest

Morphological distribution of lung cancer from Cancer Incidence in Five Continents Vol. X

To compare the morphological distribution of cancer incidence worldwide, we abstracted the incidence in 2003–07 from *Cancer Incidence in Five Continents Vol. X* (CI5-X). The International Agency for Research on Cancer provides the CI5 detailed databases on the incidence of cancer recorded by cancer registries (regional and national) worldwide. We used the number of incidences in Japan, the Republic of Korea, the USA, Brazil, UK, Italy and Australia from the CI5 database which contains the incidence for selected cancer registries published in CI5-X for 2003–07. The Republic of Korea and the USA (NPCR: National Program of Cancer Registries) reported the cancer incidence covered by all the country; however, the remaining countries reported the cancer incidence by registry. We aggregated eight registries in Japan, two registries in Brazil, four registries in the UK, 22 registries in Italy and five registries in Australia. We compared the morphological distribution between countries for lung cancer coded as C34 (ICD10).

The incidence of lung cancer was ranked in the top three for males and in the top six for females in all the countries studied. The age-standardized rates of lung cancer (including trachea cancer coded as C33) by world standard population (/100 000) were 42.7 in Japan, 49.8 in the Republic of Korea, 53.5 in the USA, 28.2 in Brazil, 44.9 in UK, 49.0 in Italy and 74.2 in Australia for males; 14.4 in Japan, 13.4 in the Republic of Korea, 36.4 in the USA, 12.9 in Brazil, 27.7 in UK, 11.6 in Italy and 19.7 in Australia for females. These rates were average values for several registries in some selected countries as described earlier.

Figure 1 shows the distribution of morphology for males; Figure 2 shows these data for females. Squamous cell carcinoma (SCC), adenocarcinoma, small-cell carcinoma and large cell carcinoma made up ~60% of all lung cancers, and 12–35% were unspecified morphology for both sexes. Sarcoma and other morphology were rarely classified.

For males, adenocarcinoma was the first or the second most common morphology in all the countries. In Korea, >30% of the patients diagnosed with lung cancer had SCC. The proportion of SCC was ~20% in other countries. The proportion of large cell carcinoma was important in Brazil, Italy and Australia and accounts for 17.9, 12.4 and 13.2%. In the USA, the UK and Australia, other specified carcinoma was common, at 20.8, 12.9 and 12.7%, respectively. For females, a wide variety of distribution of morphology was observed. In all the countries, adenocarcinoma was the predominant morphology, especially in Japan and the Republic of Korea, where it represents approximately half of all lung cancers. Adenocarcinoma was the most frequent morphology, representing ~30% of all lung cancers in the USA, Brazil, Italy and Australia as well. In UK, adenocarcinoma was still the most frequent; however, SCC, small-cell carcinoma, and other specified carcinoma were also apparent. In the USA, UK and Australia, SCC and other specified carcinoma were often observed, at 10–14% and 12–20%, respectively.

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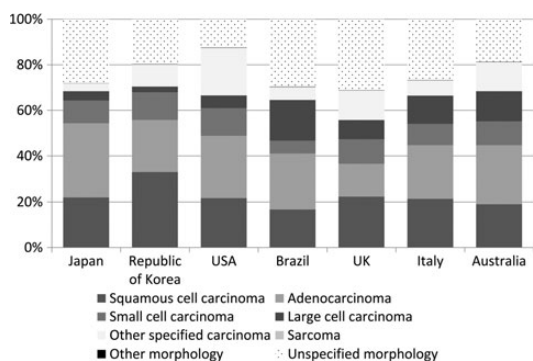


Figure 1. Distribution of morphology for lung cancer (males).

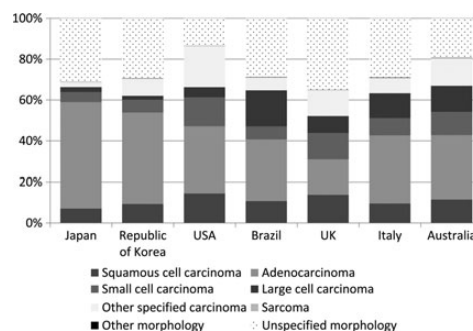


Figure 2. Distribution of morphology for lung cancer (females).

Note: Data were downloaded from IARC CANCER Mondial Statistical Information System (<http://www-dep.iarc.fr/>). Responsibility for this presentation and interpretation lies with the authors of this article.