



EPIDEMIOLOGY

RISK OF SECOND PRIMARY CANCER AFTER A DIAGNOSIS OF NON-MELANOMA SKIN CANCER.

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Background: a personal history of non-melanoma skin cancers (NMSC) seems to expose to an increased risk of developing second primary cancers, both cutaneous and extra-cutaneous.

Objective: to assess the risk of occurrence of second primary tumour in NMSC patients compared with that of general population.

Materials and Methods: this observational study analyzed a retrospective cohort of cancer patients whose first diagnosis was NMSC. This cohort came from the network of general cancer registries of Emilia-Romagna Region, north-east Italy, belonging to Italian Cancer Registry Association. All data were validated by International Agency for Research on Cancer (IARC) and covered an overall period from 1978 to 2012. Two main indexes were used to assess the cancer incidence risk of NMSC patients respect to the general population: i) Standard Incidence Ratio (SIR), and ii) Excess Absolute Risk (EAR), expressing the absolute excess or deficit of second cancer incidence.

Results: 78,172 primary NMSC were found in 76.383 patients. Among them, 14,185 developed a second primary cancer in the subsequent follow-up. NMSC patients were found to have a higher risk (average +25%) of developing a second primary malignant cancer in comparison with general population. Some risk differences were found according to gender, period of observation and patients' age. Among NMSC patients, we found an increased risk of developing second cancer not only in terms of SIR but, at least for some tumors like breast, skin cancers, lung, prostate, stomach, liver, and hematological malignancies, also in absolute incidence compared to that expected (EAR).

Conclusions: NMSC could be considered a sort of "sentinel event" pointing out a population with a long-lasting increased risk regarding several multiple primaries. Environmental agents as well as shared biological pathways may be responsible for the risk of multiple tumors in NMSC patients.

