CONTRIBUTION OF HOSPITAL DISCHARGE DATA ANALYSIS TO THE STUDY OF MULTIPLE PRIMARY CANCERS

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INTRODUCTION

The risk of multiple primaries is increasing due to cancer long-survivors. The main data sources to study cancer epidemiology are cancer registries. New additional tools are current data such as Hospital Discharge Records (HDR).

OBJECTIVES

To contribute to the knowledge of the epidemiology of multiple primaries, we propose a method to provide estimates of the risk of some cancers using HDR data. As example, we selected cutaneous malignant melanoma (CM).

METHODS

The source of data are Italian HDR, provided by the Ministry of Health. The ICD 9-CM classification is used to code diagnoses and procedures. Given the availability of HDR for the period 2001-2010, the choice of CM is due to the elevation of cancer risk among survivors in the first years. We selected a cohort of patients with the first hospitalization due to CM in 2007, followed-up for three years, and investigated for seven sites of second primary cancer, using an ad-hoc algorithm. Patients aged 15-84 years were included. The numbers of observed second cancers were calculated and SIR-like will be estimated.

RESULTS

From the total of 6162 CM patients (51% men; 49% women; mean age at CM diagnosis 59 and 56 years, respectively) that we considered as “incident CM” in 2007, we excluded 900 with a previous hospitalization (2006-2001) mentioning another primary/secondary cancer (all sites), or dead in hospital. Among the remaining 5262 CM patients (2596 men; 2666 women), second primary cancers occurred in 94 (1.8%). The men/women ratio was 1.8; mean age at CM diagnosis was 69 years in men and 65 in women. The most frequent second cancer (Tab 2) was cancer of the prostate (n=29, 1.14% only in men), followed by female breast (n=17, 0.63% only in women), lung (n=19, 0.36%), kidney (n=15, 0.30%), liver (n=7, 0.13%), thyroid (n=6, 0.11%) and esophagus (n=1, 0.02%).

CONCLUSION

The HDR database may be considered as a potential integration tool to study the occurrence of multiple cancers, keeping into account some possible bias. Further investigation about the observed/expected ratio to evaluate the risk of second primary malignant cancer is going to be performed.