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Letter to the editor

Risk of second cancer after testicular cancer in Vaud and Neuchâtel, Switzerland

Patients with testicular cancer have been reported to have an increased risk of developing new primary cancer in the contralateral testis, although the extent of the excess risk remains open to debate. The relative risk (RR) from the largest published series ranged between 6- [1] and over 25-fold [2, 3], reflecting in some degrees random variation, population characteristic, as well as a different definition of second primary cancers. Further, patients diagnosed with testicular cancer may have excess risk of lymphoid neoplasms, following chemo- or radiotherapy for the disease [1, 4].

To provide further information on the issue, we have combined the datasets from the Swiss Registries of the cantons of Vaud and Neuchâtel whose populations, according to the 1990 census, were 600,000 and 160,000 inhabitants, respectively [5, 6]. Population-based incidence data have been available since 1974. The registries are tumour based, and multiple primaries in the same person are registered separately. Both passive and active follow-up procedures are followed, and each subsequent item of information is used to complete the record of the patient [7].

After exclusion of one case detected at autopsy and five at death or by death certification alone, the present series comprised 745 testicular cancers (ICD-9 topography code: 186.9 [8]), including 356 seminomas (ICD-O-9 morphological code 9061-3), 317 germ-cell malignant tumours (ICD-O-9 9060, 9064-90), and 72 other or unspecified neoplasms diagnosed between 1974 and 1996 (rate of histological verifications: 97.1%). These persons were followed-up to the end of 1996 for the occurrence of a second primary neoplasm, emigration, or death, for a total of 6354.7 person-years at risk. Second primary testicular cancers were by definition of different histological type (seminomas/germ-cell malignant tumours/other or unspecified) as compared to primary ones (although this may represent a conservative definition of second primaries), and registered >2 months after primary ones. Calculation of expected numbers of cases were based on site-, age-, and calendar-period specific incidence rates, multiplied by the corresponding number of person-years at risk. The significance of the observed:expected ratios (standardized incidence ratio (SIR)) and their corresponding 95 percent confidence intervals (CI) was based on the Poisson distribution [9].

Table 1 gives the observed and expected numbers of all neoplasms and of cancers of selected sites. A total of 35 second primary neoplasms were observed *versus* 24.8 expected, corresponding to a SIR of 1.4, of borderline significance (95% CI: 0.98–2.0). A significant excess was observed for second testicular cancer with 6 observed *versus* 0.98 expected (SIR = 6.1, 96% CI: 2.2–13.3). Moderate and non-significant excesses were observed for a few other cancer sites, too (Table 1), including one case of leukaemia *versus* 0.49 expected. Excluding testis and skin non melanoma, the SIR was 1.2 (95% CI: 0.7–1.8).

The present series is based on relatively small absolute numbers, and on a strict and conservative definition – in terms of histological types and time of diagnosis – of second primary testicular cancer. In particular, the use of different histologic criteria for a new primary is a very strict definition, which produces very conservative estimates of risk. Even in the absence of information on treatment [1], this study provides, nonetheless, further information on risk of second primary testicular cancer, and perhaps lymphoid neoplasms, although data are too limited for any quantitative evaluation of this issue.

Table 1. Observed (O) and expected (E) cases, and standardized incidence ratios (SIR) of selected[a] subsequent cancer sites after an initial diagnosis of testicular cancer, and corresponding overall standardized incidence ratios (SIR) and 95% confidence intervals (95% CI). Vaud and Neuchâtel, Switzerland, 1974–1996.

Site	O	E	SIR	95% CI
Stomach	2	0.8	2.5	0.3–9.2
Colorectum	3	2.0	1.5	0.3–4.3
Lung	4	3.6	1.1	0.3–2.8
Skin, non melanoma	8	5.9	1.4	0.6–2.7
Prostate	2	2.0	1 0	0 1–3 6
Testis	6	1.0	6.1	2.2–13.3
Kidney	2	0.6	3.5	0.4–12.6
Brain	2	0.5	4.2	0 5–15.4
Total, all sites	35[a]	24.8	1.4	1.0–2.0
All sites, minus testis	29	23.8	1.2	0.8–1.7
All sites, minus testis and skin non melanoma	21	17.9	1.2	0.7–1.8

[a] Only one case was observed for cancers of the mouth or pharynx (1.8 expected), pancreas (0 5 expected), larynx (0.5 expected), skin melanoma (0.9 expected), leukaemias (0.5 expected), and other and unspecified sites (0.4 expected).

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Book review

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Gastrointestinal oncology. A. B. Benson, III (ed). Kluwer Academic Publishers, Boston/Dordrecht/London, 1999. 408 pp, ill., $365.00, £237.25, Dfl. 745.00.

Twenty-seven authors (all but three of them American) have contributed to the drafting of this book, which includes thirteen chapters about digestive oncology, aimed at emphasising treatment advances and research developments in the field.

The contents of the volume can be divided into two areas of interest. The main one, constituting 11 chapters, deals with the crucial issues inherent to both classical and innovative therapeutic strategies in management of patients with esophageal, hepatocellular, anal (overall overviews), exocrine pancreas, gastric (adjuvant setting), colorectal (chemotherapy of advanced disease, adjuvant combined therapy for rectal cancer), and metastatic liver (surgical and locoregional treatment) carcinomas. Two chapters focus on specific biological therapy (cytokines, immunomodulators, monoclonal antibodies, cancer vaccines) for bowel malignancies, and new trends regarding disease-oriented staging and surgical approaches. Separate attention is paid to the mechanisms involved in pharmacological resistance of colorectal tumours. The second area, which comprises the two concluding sections, is dedicated to a description of the molecular genetics of pancreatic and colon cancers.

A laudable effort has been made to present the contents in a clear and readable manner, providing mostly useful information not only about current multimodal treatment options, but also, in some sections, promising areas of research development. For this purpose, the authors have carefully updated the literature on subjects, although in the majority of chapters the most recent references precede by two years the publication date of the book, which is a typical editorial drawback. In general, the chapters are well worked out, even if on occasion some of the contents do not fully correspond to the objectives mentioned in the book preface. Thus, some sections (such as those on esophageal, hepatocellular, pancreas and anal cancers) vary in their details about pathological, epidemiological and clinical features. The chapters on colorectal and gastric malignancies are very well constructed, presenting an exhaustive analysis of the results of most relevant pharmacological and combined modality trials. Equally excellent is the section dedicated to tumour resistance, which deals with the genetic and biochemical changes influencing the cellular response to pharmacological agents, and their implications for innovative therapies (inhibitors of signal-transduction, angiogenesis and tissue proteinases). The section on surgical oncology highlights the current diagnostic options for accurate pre-operative staging, with an interesting overview of minimally invasive and radical approaches. There is useful information in the chapter concerning metastatic liver tumours, which reviews local treatment such as hepatic resection, arterial chemotherapy, chemoembolization and cryosurgery, the latter probably having a major impact in the near future. The chapter on biological therapy covers the field from an historical point of view, whereas in sections on molecular biology more space could have been devoted to the discussion of potential applications in patient management.

There is already extensive literature regarding the topics discussed in this volume. Nevertheless, it makes the subjects interesting and sometimes attractive, having the merit of stressing the role, often undervalued, of the requirement of a multidisciplinary interaction in management of digestive malignant diseases. For these reasons, it can be recommended to both an audience of general oncologists and specialists in the field.

P. Saletti
Harrow