RESEARCH COMMUNICATION

Incidence of Genitourinary Cancers in the Islamic Republic of Iran: A Survey in 2005

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Abstract

We here report the incidence of different types of genitourinary cancers among the Iranian population according to the records of the Iran Ministry of Health and Medical Education. In a population-based cancer-registry study in 2005, all recorded data in pathology laboratories, freestanding cancer clinics and treatment centers, physician offices, and other state central registries were obtained with the assistance of Iran Universities of Medical Sciences and sent to the Diseases Management Center in the Health Ministry. The prevalences of urological cancers were as follows: bladder cancer 48.3%; prostate cancer 33.4%; renal cell carcinoma 10.3%; renal pelvis and ureter cancer 0.75%; testicular cancer 6.15%; penile cancer 0.15%; urethral cancer 0.45%; and other unspecified urinary cancers 0.43%. The male to female ratios for the various common urological cancers varied between 1.69 (renal cell carcinoma) and 7.75 (unspecified urinary cancers). The incidence of prostate cancer among our population was dramatically higher than in other countries of Asia. However, bladder cancer was found to be the commonest of the genitourinary cancers, especially in elderly patients, among our population.

Key Words: Genitourinary cancers - incidence - sex ratio - epidemiology

Introduction

Cancer is a major public health problem entire the world especially in developing countries. Among various types of malignancies, genitourinary cancers have important role that lead to high mortality and morbidity. Furthermore, patterns of these cancers are variable according to time, region, and ethic groups (Lee et al., 1992). It is, therefore, important to understand the epidemiological features of cancer. Furthermore, improvement of the knowledge toward surveillance of cancer incidence and mortality not only can help to assess the effects of improved diagnostic, screening and intervention measures, but indicates the need for continued promotion of urological cancer screening programs (Cheon et al., 2002). Besides, progress in reducing the burden of suffering and death from cancer can be accelerated by applying existing cancer control knowledge across all segments of the population (Jemal et al., 2006).

In Iran, only limited data are available concerning the incidence of genitourinary cancers. Also, the reported incidence of these cancers was low as compared to the other countries that can at least partly be explained by the lack of nationwide screening programs, young age structure and quality of cancer registration system in Iran (Sadjadi et al., 2007).

During the last years, the Iran Ministry of Health and Medical Education tried to collect a complete statistical data about different types of cancers and this led to the set of almost forty thousand new cases of cancers in this county. In the present article, we make a report of the incidences of different types of genitourinary cancers among the Iranian population according to the records of the Iran Ministry of Health and Medical Education.

Materials and Methods

In a population-based cancer-registry study in 2005, all recorded data in pathology laboratories, freestanding cancer clinics and treatment centers, physician offices, and other state central registries were obtained with the assistance of staff of Iran Universities of Medical Sciences and sent for analysis to the Diseases Management Center in the Iran Health Ministry. Data submitted were edited for quality and consolidated to remove duplicate cases. Data were then analyzed so that crude, age-adjusted and age-specific annual cancer incidence rates could be produced, and trends in incidence for all cancers and for specific types/sites of cancer by age and sex could be assessed.

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Incidence of prostatic cancer was 20.74% of all urogenital malignancies. Furthermore, they showed however malignant tumors of the testis constituted 0.95% of all the malignant tumors of male urogenital tract, renal and bladder tumors constituted 10.64% and 29.52%

In another study in South Korea, it was shown that the bladder cancer was the most common urological cancer with the incidence of 52% and the peak incidence of urological cancer was noted in the 70+ age group. Also, the peak of sex ratio in patients with urological cancers was noted in the two age groups of 10-19 years and more than 70 years.

Age distribution of urological cancers:

The peak incidence of renal cell carcinoma and testicular cancer were noted in the age groups of 60-69 years and 30-39 years, respectively. The peak incidence of other types of cancers was reported in the 70+ age group. Also, the peak of sex ratio in patients with urological cancers was noted in the two age groups of 10-19 years and more than 70 years.

Discussion

It is clear that for reduction of the incidence and mortality rates of genitourinary cancers, epidemiological studies are necessary especially in developing countries with high incidence of these disorders. The epidemiologic pattern of cancers in developing countries differs in many aspects from that of industrialized nations (Basile et al., 2006).

In the present study, we tried to report the incidence of genitourinary cancers in our country and then compare it with the incidences rates of other countries. We found that the most common urological cancers among our population were bladder (48.3%) and prostate (33.41%) cancers. Also, we indicated that the incidence rate of genitourinary cancers were notably higher more in men than women and this difference was especially noted in the two age ranges of 10-19 years (sex ratio:11.34) and more than 70 years (sex ratio:9.74). Similarly, in a study in South Korea, it was shown that the bladder cancer was the most common urological cancer with the incidence of 52% and the peak incidence of urological cancer was noted in the 70+ age group. However, in that study, the incidence of prostate cancer was lower than our study population. Therefore, public programs should be focused on designation of population-based protocols for the screening and prevention of these common cancers especially in the elderly. Also, determination of the main predictors of the incidence of these malignancies, especially prostate and bladder cancers, for the implementation of these programs.

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References


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