

Characteristics of urological cancers – a prospective audit in a single unit

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Introduction

Malignancies are the fourth commonest cause of death in Sri Lanka. In USA, prostatic cancer is the second-most common cancer among men and urological cancers constitute a large portion of all cancers (1). Though countrywide statistics are not available for Sri Lanka, urological malignancies appear to be common in Sri Lanka too. According to the data collected at cancer units in government hospitals in Sri Lanka, prostate cancer is the eighth commonest cancer in men in the year 2005 (2). Prostate and bladder cancer deaths rank 13th and 14th places of deaths due to cancer in Sri Lanka. Crude annual cancer death rate has increased by more than 50% over the last 20 years in Sri Lanka. Bladder cancer in Sri Lanka has been well studied and there are several publications (3,4). In the absence of a true national cancer registry, data maintained at individual units or at institutional level are useful to identify epidemiological and demographic patterns. We conducted a prospective audit of malignancies of the genitourinary tract managed in a single urology unit at the Colombo South Teaching Hospital.

Method

A cancer registry was maintained prospectively. Data belonging to all newly diagnosed malignancies were recorded. The data were updated as the patients' follow up continued in the clinic. The data belonging to patients from 1 January 2009 to 31 December 2009 were analysed.

Results

Table 1 shows the number of malignancies in different organs of the urinary tract. Out of the eight renal cancers six were clear cell carcinomas. One was a squamous cell carcinoma and the other was a nephroblastoma. The squamous cell carcinoma was found in a woman with no history of smoking. She did not have renal stones which may have predisposed to a squamous cell carcinoma. There were two patients each belonging to Robson stage I and IV. The other two clear cell carcinomas belonged to Robson II and IIIa stages. The

mean age of clear cell carcinoma (n=6) was 58 years and five were men. It is interesting to note that only 3 patients with renal tumours (n=8) had haematuria.

Table 1. Distribution of urological malignancies

Organ	Number of patients	Male: Female	Average age years
Kidney	8	6:2	53.4
Bladder	28	23:5	66.6
Prostate	25	-	71.4
Testis	3	-	53.2
Penis	2	-	62.0

All 28 newly diagnosed bladder cancers were transitional cell carcinomas. Nine (32.1%) of them were muscle invasive. One of the 19 superficial bladder tumours were poorly differentiated (G3). Haematuria was the presenting symptom in 22 patients. The male to female ratio was 5:1. 88% of them were above 65 years old.

There were 25 newly diagnosed prostatic carcinomas during the study period. 92% (23/25) of them were more than 65 years old and 36% (9/25) were over the age of 75 years. The Gleason score was eight or more in 39% of patients. It was between 5 and 7 in 44%. Twenty patients had their serum PSA done. In 12 (60%) of them the serum PSA was above 60 ng/ml.

Two of the three testicular tumours were lymphomas (high grade Non-Hodgkin's lymphoma and diffuse B-cell lymphoma). The other was a mixed germ cell tumour with a predominant seminomatous component.

One penile cancer was a well differentiated squamous cell carcinoma while the other was moderately differentiated. Both of them had been having a penile ulcer for more than 3 months.

Discussion

The characteristics of our renal cancers seem to be similar to worldwide trends. 32.1% of the bladder malignancies diagnosed by us were muscle invasive tumours. A study done at the National Hospital of Sri Lanka (NHSL) revealed a larger muscle-invasive group (48.4%) in a cohort of 301 patients (3). The difference may be related to the small number of this study. The male to female ratio in that study (6;1) is close to ours (5:1). Another study from the same hospital had a male to female ratio of 9:1 (4). The Cancer control programme figures give a male to female ratio of 4.5:1. All bladder carcinomas were transitional cell carcinomas in our study. According to the cancer programme data 8.1% of bladder cancers were squamous cell carcinomas and 4.5% were adenocarcinomas. 3.5% were T1G3 tumours in our study compared to 5.3% at NHSL (3).

According to the western world statistics, 80% of prostatic cancers occur in the above 65 years age group. 92% of our patients were above 65 years. This may be due to the differences associated with widespread PSA screening and consequent lead time bias. 36% of our patients were beyond the average life expectancy of Sri Lankan men when the cancer was diagnosed. The average age of patients with prostatic cancer diagnosed by PSA screening and trans rectal ultrasound guided prostatic biopsies in Sri Lanka has been 71.3 years (5). In our patients with prostatic cancer, the average was

71.4 years. Fourteen patients were diagnosed from prostatic chips after TURP. Since we have done 129 TURPs during the study period the ratio of malignancy in prostatic chips after TURP is 11% – not very different from the standard figure of 10%.

As we do not have a national cancer registry it is useful for individual units to maintain their records. Such data can be used as an adjunct to the data collected by the National cancer control programme.

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