An Overview of the Cancer Control Programme in Singapore

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Singapore is a multiracial, multireligious and multicultural society. Today, cancer is the leading cause of death in Singapore and about one in four deaths is from cancer. The Singapore Cancer Registry has been in existence for more than 25 years and its accuracy of data for incidence, distribution, changing patterns, etc., is close to 100%. These statistics revealed that the incidence of cancer is related to the racial distribution of the population. A national concerted cancer control programme is targeted at prevention, early detection and integrated management. Strong laws against smoking and a national vaccination programme against hepatitis are in place.

Key words: Singapore – cancer control – antismoking campaign – vaccination programme

INTRODUCTION

Singapore is a multiracial, multireligious and multicultural society with a population of just over 3 million (about 77.7% Chinese, 14.1% Malay, 7.1% Indian, 1.1% others). Singapore is divided into 28 districts, each having a community centre where the residents can congregate. Racial, cultural and religious practices have influenced cancer care.

Table 1. Singapore: cancer deaths, 1968–97* (total population, including non-residents)

<table>
<thead>
<tr>
<th>Period</th>
<th>Population-at-risk*</th>
<th>Mean annual number of cancer deaths</th>
<th>Crude annual cancer death rate (/100 000 mid-term population)</th>
<th>Proportion of cancer deaths among deaths from all causes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968–72</td>
<td>2 074 507 (1970 Census)</td>
<td>1622.2</td>
<td>78.2</td>
<td>14.8</td>
</tr>
<tr>
<td>1973–77</td>
<td>2 249 900 (1975 estimate)</td>
<td>2086.4</td>
<td>92.9</td>
<td>17.8</td>
</tr>
<tr>
<td>1978–82</td>
<td>2 413 945 (1980 Census)</td>
<td>2540.4</td>
<td>105.2</td>
<td>20.2</td>
</tr>
<tr>
<td>1983–87</td>
<td>2 558 000 (1985 estimate)</td>
<td>2909.0</td>
<td>113.7</td>
<td>22.1</td>
</tr>
<tr>
<td>1988–92</td>
<td>3 016 379 (1990 Census)</td>
<td>2918.0</td>
<td>96.7</td>
<td>20.9</td>
</tr>
<tr>
<td>1993–97</td>
<td>3 467 000 (1985 estimate)</td>
<td>3881.6</td>
<td>111.9</td>
<td>25.6</td>
</tr>
</tbody>
</table>

*Data from Department of Statistics. †Derived from Reports on the Registration of Births, Deaths and Marriages.

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Today, cancer is the leading cause of death (Table 1). About one in four deaths is from cancer. Collection of statistics is of immense importance. We believe that ‘the statistics of today are the strategy of tomorrow’. The Singapore Cancer Registry has been in existence for more than 25 years and its accuracy of data for incidence, distribution, changing patterns, etc., is close to 100% (1). These statistics help us to plan our Cancer Control Programmes.

CANCER INCIDENCE IN DIFFERENT RACES

There are differences in the racial distribution and also a changing pattern in cancer incidence. Colorectal cancer is now the second commonest cancer and lung, colorectal, breast, cervical, stomach and liver cancer are present in all three major races (Fig. 1). It is noted that Chinese are more prone to nasopharyngeal and oesophageal cancers (Fig. 2). Malays have a slightly higher incidence of lymphoma (Fig. 3). Unlike the West, Singapore has a higher incidence of NPC, oesophagus, stomach and liver cancers and lower rates for cancers of the pancreas, skin and prostate. Indians are more prone to laryngeal and oral cancers (Fig. 4). These differences are seen even in second- and third-generation immigrants. Figures 2–4 reflect the incidence of cancer in different races in Singapore.

CANCER CONTROL ACTIVITIES

In Singapore, cancer control activities are carried out by the government and voluntary organizations with activities described in Table 2.

PREVENTION

In the field of cancer prevention, the main activities that are being promoted are listed in Table 3.

Hepatitis B vaccination was started in 1983. Today, close to 100% of newborns are vaccinated. The incidence of hepatitis has been shown to be declining. How this will reflect the prevalence rate of liver cancer is yet to be seen.
Cancer control in Singapore

Singapore has a very strong anti-smoking programme (Table 4). This programme resulted in a decrease of the smoking prevalence among adults from 19% (1980) to 13.6% (1990).

CANCER SCREENING FOR EARLY DETECTION

One of the main approaches to cancer control is targeted at early detection. Screening programmes are carried out by the government, clinics, hospitals and voluntary organizations. Nation-wide screening was focused on breast and cervical cancers, for several reasons: these cancers are common in Singapore; screening tests are simple and fairly accurate; early detection is possible; and effective treatment is available. Programmes for early detection include a wide distribution of educational materials, talks at schools, clubs and community centres, public education through the media, TV, radio and newspapers and making screening affordable for relevant instances. Awareness clinics for gastric, lung and colorectal cancers also play an important role for early detection of cancers.

FACILITIES FOR CANCER PATIENTS

The third component of our cancer control programmes is the establishment of comprehensive cancer centres. A National Cancer Centre (NCC) has recently been established. There is also a total comprehensive cancer centre at the National University of Singapore and a cancer centre in the private sector. With these specialized centres, our cancer care doctors work together towards the improvement of treatment modalities. At the NCC, we have established a National Work Group for all common cancers (including gastric, liver, lung, breast, cervical, colorectal, haematological, bone and other cancers). We are working towards a national concerted effort at cancer

Table 2. Cancer control activities in Singapore

1. Ministry of Health (Government)
   (a) Educational and Training Department
   (b) Public Health Division, Ministry of Health
   (c) Primary Health Care Services
   (d) Hospital Divisions
2. Voluntary Organizations such as Singapore Cancer Society
   (a) Prevention
   (b) Early detection
   (c) Integrated management
   (d) Rehabilitation
   (e) Hospice care
3. Cancer Institute
   (a) The National Cancer Centre (The Singapore Healthcare Group)
   (b) The Cancer Institute (The National Healthcare Group)

Table 3. Main activities in cancer prevention in Singapore

1. Hepatitis vaccination
2. Anti-smoking campaign
3. Health campaigns ongoing (a nation of campaign)
4. Healthy life-style promotion
5. Awareness programmes

Table 4. Anti-smoking programme in Singapore

1. Anti-smoking campaigns held in schools and army camps and for the general public
2. An intense programme targeted at the young
3. National Smoke-out Day
4. Strict laws: fine for smoking in prohibited places and for persistent littering of cigarette butts
5. Smoke-cessation clinics

Figure 4. Ten most frequent cancers in Indian males and females in the period 1993–97. The numerals indicate the percentage incidence of all cancers.

Table 5. Main activities in cancer prevention in Singapore

1. Hepatitis vaccination
2. Anti-smoking campaign
3. Health campaigns ongoing (a nation of campaign)
4. Healthy life-style promotion
5. Awareness programmes

Table 6. Anti-smoking programme in Singapore

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5. Smoke-cessation clinics
control with an integrated management protocol for common cancers.

A good cancer control programme must also provide an active rehabilitation service. We hope not only to add years to life, but also to add life to the years added. Cancer rehabilitation is a team effort that needs doctors, nurses, paramedics, psychiatrists, social workers, the family and the spiritual director. Rehabilitation is an area in which we have started intensively in the last 10 years. However, there is still occasional inadequate religious and cultural understanding that needs to be resolved. Someone has said, ‘no man is an island’; I think ‘we are all islands’. Each of us is an island, an island of ignorance, separated by seas of misunderstanding. As health care workers in cancer control, we must try to build bridges of understanding across these seas of misunderstanding, so that we can help our patients to live as normal a life as possible. In Singapore, the rehabilitation programmes include the support groups described in Table 5.

The final component of the Cancer Control Programmes is to provide care for the cancer patients in the terminal stage. When we take care of cancer patients, it should be kept in mind that it is important to consider not only the longevity of existence but also the quality of life. In Singapore, we currently have three hospices where terminal cancer patients can be taken care of. We must remember that although not all cancers can be treated, all patients can be given care.

SINGAPORE CANCER SOCIETY

The final point is the role of the Singapore Cancer Society in influencing the country’s national cancer control programmes. The Singapore Cancer Society has played a very important role in the last 25 years, especially in education, screening, public health awareness, rehabilitation and other support services. It can act as a catalyst for governmental action.

In 1985, a WHO Seminar on Cancer was held in Singapore. The recommendations of the delegates attending are described in Table 6. All these objectives have been achieved and we are moving forward. A National Cancer Control Coordinating Committee has been formed to oversee cancer control management. The way ahead for us is described in Table 7.

Hopefully our patients will benefit so that he or she can say, ‘I may have cancer but cancer does not have me’.

Reference