The Situation with Cancer Control in Vietnam

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Vietnam is one of the poor, developing countries. Malnutrition and infectious diseases are still major health problems. Cancer ranks in a relatively modest position of priority. The reason is partly explained by a shortage of treatment facilities and poor quality of health and vital statistics. The leading cancers in the country are lung, liver, stomach, colon–rectum and nasopharynx in males and breast, cervix, stomach, liver, colon–rectum and lung in females. Although the country has some common patterns of cancer such as a relatively high incidence of nasopharynx, liver and stomach and a relatively low incidence of breast and prostate cancer compared with international data, the geographical distribution of cancer is not homogenous within the country. The most remarkable difference is observed in cancer of the cervix uteri, of which the incidence in the South is, at least four times higher than that in the North. Other less extensive differences are observed in cancer of the lung, stomach, nasopharynx and breast, the incidence of which seems to be higher in the North than in the South, and the liver, which seems to be more frequent in the South than in the North. It was estimated that in 1990 the cancer incidence in Vietnam was about 133 per 100 000 in males and 91.7 per 100 000 in females and that the mortality was 105.9 and 58.5 per 100 000, respectively (standardization to the world’s population). In that year, Vietnam had at least 52 700 new cancer cases and 37 700 dead from cancer. Although the National Cancer Control Program is still in preparation, some efforts by the government have already been made with tobacco control, improving the cancer treatment net, mass media education and production of vaccine against HBV. Cancer control in Vietnam still has to deal with challenges such as poor quality of cancer morbidity and mortality data, shortage of resources for establishing a comprehensive cancer control network from the center to the peripheries, lack of data for an anti-tobacco program and misunderstanding or limited knowledge of general practitioners and the public about the disease.

Key words: Vietnam – cancer incidence – cancer control

INTRODUCTION

By the classification of the World Bank, Vietnam is among the poorest countries of the world with GNP per capita in 1995 of about US$300. It is still a largely agricultural economy with two-thirds of its population still dependent on agriculture for living (1). Vietnam is also a very populous country with a population in 1997 of about 76 million and a population density of about 231 inhabitants per km². Despite the efforts of the government concerning birth control and family planning, the population growth rate in 1997 was still about 1.8% and the total fertility rate 2.7 (2). Even so, the country reaches relatively high scores in many social indicators such as life expectancy, schooling rate and infant mortality rate compared with many other countries at the same level of economic development (3). In this generally difficult economic panorama, the health budget per capita is only about US$4 and occupies only 6% of state budget expenditure (2).

Diarrhea and respiratory infections are still major health problems in Vietnam. Cancer and cardiovascular diseases have a low rank of priority. These diseases have not been included in the first 10 leading causes of morbidity and mortality by the Ministry of Health but the evaluation was based on hospital statistics and are surely biased by many factors such as incompleteness and misclassification, in particular concerning mortality statistics (2) (even though death registration, as a part of vital statistics, has existed in Vietnam for many years, the data cannot be used for medical management purposes as the medical cause of death is not mandatory information and has not been collected. Nevertheless, the Ministry of Health considers that the pattern of diseases in Vietnam is ‘transitional.’ Although infectious diseases are still leading pathologies, other diseases related to development such as cardio-
vascular disease and cancer have become more and more important.

**CANCER PROBLEMS IN VIETNAM**

Many attempts have been made to estimate cancer problems in Vietnam. Before 1990 these studies were mainly based on hospital statistics and could not give an estimation of cancer incidence (4–6). Ranking the relative importance of each cancer was biased by the selection of patients for treatment and diagnosis by hospitals. Nonetheless, these studies have shown a common pattern: cancer of the nasopharynx, stomach, liver and placenta are frequent throughout the country. Cancer of the genital organs used to be frequent in both the North and South, but the authors noted that there is a gender difference between two regions: whereas cancer of penis was higher in the North than in the South, cancer of cervix was higher in the South than in the North.

There has been a significant decrease in the relative position of cancer of the genital tract in both males and females from all series of hospital statistics in the North during the last 20 years (4–8). The change might be due to improvements in hygiene conditions or changes in sexual habits (late onset and interruption of sexual life, relatively low fertility rate) during the war.

Some studies carried out on Vietnamese migrants to other countries such as Britain (9), USA (10) and Australia (11) and recently a report of the National Cancer Institute on racial/ethnic patterns of cancer in the United States for 1988–92 (12) showed that Vietnamese immigrants to other countries have a higher risk of acquiring and dying of cancer of the nasopharynx, liver, stomach and cervix uteri but lower risk from cancer of the prostate, breast and colon compared with the native population.

Since 1987 in Hanoi and since 1990 in Ho Chi Minh City, population-based cancer registries have been introduced. The data produced by these two registries are the first on cancer incidence in Vietnam (13,14). Although the registries still have many difficulties such as a non-homogeneous quality of primary health information and a shortage of human and financial resources, the quality of the data were compatible with those of other developing countries. The percentage of microscopic verification of registered cases is about 60% in Hanoi and about 70% in Ho Chi Minh City. Table 1 shows the age-standardized rate of leading cancers of these two registries in recent years and comparison with the data from some other registries in the region (Fig. 1). Assuming that the data on cancer in Hanoi represent the pattern of cancer in the North and those in Ho Chi Minh City that in the South, the following remarks can be made about the cancer pattern in Vietnam:

1. In Vietnam, cancer of the lung, stomach, liver, colon—rectum and nasopharynx are the most frequent in males and cancer of the breast, cervix uteri, stomach, colon—rectum and lung are the most frequent in females. The largest difference between the South and the North is in cancer of the cervix: the incidence of this cancer in the South is almost four times higher than that in the North. Other less extensive differences are observed in cancer of the lung in males, stomach and nasopharynx in both genders, breast in females, the incidence of which seems to be higher in the North than in the South, and liver in males, which seems to be more frequent in the South than in the North.

2. International comparisons show that Vietnam has the pattern of cancer common in developing countries with relatively high rates of cancer of the stomach, nasopharynx, cervix and placenta whereas cancers common in the ‘developed’ world
are relatively low, e.g. cancer of the breast, prostate and colon.

Based on the data from the Hanoi cancer registry, the International Agency for Research on Cancer estimated that in 1990 the cancer incidence in Vietnam was about 133 per 100 000 in males and 91.7 per 100 000 in females; the mortality was 105.9 and 58.5 per 100 000, respectively (standardized to the world’s population) and that Vietnam had at least 52 700 new cancer cases and 37 700 dead from cancer in that year (15).

### CANCER CONTROL NETWORK IN VIETNAM

Before 1990, the country had only two specialized centers: one in Hanoi and one in Ho Chi Minh City with 400 specialist beds and three cobalt therapy units. Since 1990, these two institutions have been extended. In addition, in many provinces, such as Hanoi, Hai Phong, Hue and Da Nang, the local authorities have founded cancer units at the provincial general hospitals. Up to 1999, in the country there were 1120 cancer specialized beds, 12 cobalt units and eight brachytherapy units (16). In addition to the specialist cancer institutes, many other specialist institutions and hospitals are also participating in cancer diagnosis and treatment, but assuming that about 80% of cancer cases need combined therapy with either radiotherapy or chemotherapy, which are available only in cancer institutions, this very modest cancer management system is far from adequate to meet the needs of a country with a population of more than 70 million.
The foundation of the Vietnamese Cancer Association and its affiliations in Hanoi and Ho Chi Minh City has shown the increased awareness of the public and medical society regarding cancer problems and their interest in cancer control. Nevertheless, a cancer control program as recommended by the WHO to all countries in the world has not yet been approved as a national program in Vietnam.

CANCER CONTROL ACTIVITIES

PRIMARY PREVENTION

Tobacco Control Program

The size of the problem. Vietnam is a country with a very high level of tobacco production and consumption. The cultivated surface for tobacco plants in 1994 was about 24,000 ha and tobacco production represented about 2 billion packs of cigarettes; these were mainly sold in the domestic market and the estimated annual level of consumption in 1994 was about 600 cigarettes per capita (17). The results of a well designed survey in 1995 showed that 73.4% of males and 3.9% of females are smokers. The onset of smoking is at a young age: 70% of smokers began before the age of 25 years (18). Recently, a hospital-based case control study carried out in the National Cancer Institute in Hanoi, investigating the role of tobacco and cancers, found that ‘water pipe’ smoking, a traditional and very popular type of smoking in the past and during the war, is also strongly related to lung and superior aerodigestive tract cancer (19, 20).

Attempts and success. In May 1989, the Ministry of Health organized the Directory Committee for Tobacco Control headed by the Minister. In 1994, this Committee was reorganized and renamed the Directory Committee for Prevention and Control Hazards of Tobacco and a plan of tobacco control for 1995–99 was approved. The fight against tobacco was legitimized in the Order Prohibiting Smoking in Public Places: Schools, Hospitals, Meeting Rooms, Theaters, Public Transportation Vehicles (21). The government has approved a number of Instructions and Decrees concerning prohibition of importing and circulating foreign cigarettes on the market (22), prohibition of advertisement of tobacco in the mass media (23), increasing consumption tax (24) and prohibition of smoking in medical institutions (25). Vietnam has actively participated in the International Non-smoking Day with an anti-smoking campaign in the mass media.

There are still many obstacles to effective tobacco control in Vietnam (17):

1. The tobacco industry is very high interest industry: in 1994, this industry alone constituted 3.2% of GNP.
2. This industry has a very important role in creating the jobs for the labor force: in 1994 it created about 15,000 jobs in urban and more than 100,000 jobs in rural areas.
3. Tobacco smuggling is a major problem and the government should reinforce the existing rules to deal with this problem.

4. Although the education program in the mass media has been very active, the efficacy was not evaluated. The school programs of education on the deleterious effects of tobacco need to be more intensive.

Prevention of Primary Liver Cancer

Liver cancer is one of the leading cancers in Vietnam. Since 1995, Vietnam has successfully produced a vaccine against HBV, which makes the goal of primary prevention of liver cancer more realistic and sustainable. Since 1997, this vaccine was included in the extended program of immunization for newborns in Hanoi and Ho Chi Minh City.

To deal with the threat of the AIDS epidemic, the Ministry of Health has devoted significant attention and resources to modernization of the blood bank network in the country. In medical institutions, single use of facilities for injection and transfusion is also playing an important role in the prevention of AIDS, HBV and other blood-transmitted diseases. Anti-drug propaganda is one of most active programs of health promotion.

Others

Rational nutrition and nutritional hygiene education have periodically been provided to the public in the mass media by nutritionists.

The Vietnamese have some good dietary habits: a large proportion of fresh green vegetable contributes to the daily menu and there is a preference for fresh meat and fish, but they also retain some bad habits such as a preference for salty, pickled, deep fried and grilled foods, fermented vegetables, etc. (26). Public education is also necessary for this problem. Another problem is to educate farmers to respect recommended processing procedures and to control the level of pesticides, insecticides and preserving chemicals in agricultural products.

Public education on safe sex aimed at reducing the risk of HIV and other sexually transmitted diseases including HPV infection has been widely carried out in the mass media in Vietnam in recent years.

Secondary Prevention

The PAP technique was recently introduced in Vietnam, first as a collaborative project with an American NGO. In the terms of the project there will be an exchange of specialists between Vietnam and some medical institutions in the USA in order to train specialists and supply the necessary techniques and management skills for a mass screening program on cervical cancer in Vietnam. So far, 10,439 women have been screened in this program, among whom three cancer cases were detected (27). Some very important elements should be carefully considered in the preparation phase, e.g. training and supervision of technicians, correct selection of the target population and provision of post-screening service and follow-up.

Instructions on breast self-examination have repeatedly been promoted on television and distributed in brochures. A breast cancer screening program has been carried out by a group of
specialists at the National Cancer Institute of Vietnam based on a combination of self-examination, physical examination and mammography. The detection rate was 45/100 000 (for the age group 20–50 years), which seemed to be low but was the first experience on breast cancer screening in Vietnam (28).

Most cancer patients present at the hospital at an advanced stage (the data from many reports show that the proportion of stage 3–4 is about 65–80%) when the cancer cannot be or only very ineffectively cured. The main reason for this is the poor knowledge and awareness of the public and of general practitioners at the grassroots level of the health care system. Down-staging should be an important goal of cancer control in Vietnam.

TERTIARY PREVENTION

The foundation of regional cancer control centers in recent years has been an important advance in cancer control in the country. The number of cancer beds has increased significantly. The facilities for treatment and diagnosis of cancer have increased in quantity and quality (a linear accelerator unit will be set up at the National Cancer Institute in Hanoi in 2001 and two others in Ho Chi Minh City). The number of staff has also been increased to meet the needs of the population. Despite all these effort, the gap to be filled in cancer care needs is still very large.

A workshop on cancer pain relief was organized in Hanoi; the WHO’s manual on cancer pain relief has been translated into Vietnamese. Nevertheless, the knowledge of general practitioners on new concepts in pain relief is still very limited. Still no facility for hospice care exists in Vietnam. Terminal care for cancer patients still relies on their family. The shortage of morphine tablets is a major obstacle in cancer pain management in Vietnam. The country needs an effective policy on morphine production and distribution for medical purposes.

TRAINING AND RESEARCH

Six medical schools exist in Vietnam; three of these have an oncology department but the training program is limited for postgraduate students. In our opinion, it is necessary to build up a curriculum of oncology for undergraduate students and also of hospice care for cancer patients for nursing colleges.

Despite the economic difficulties, some attention has been devoted to cancer research and some collaborative research agreements have been signed between specialist cancer institutions in Vietnam and foreign partners: cancer registries in Hanoi and Ho Chi Minh City; study of prevalence of HPV infection and risk factors of cervical cancer in Hanoi and Ho Chi Minh City; case control study on the effect of dioxin and some types of cancer with IARC; a case control study on risk factors of breast cancer; clinical trial of tamoxifen in the treatment of breast cancer with Wisconsin University; cervical cancer screening program with Vietnam–American Cervical Cancer Control Program. With the support of the WHO, many workshops on different aspects of cancer control have been organized. The shortage of resources, both human and financial, is a major problem in cancer research in Vietnam. Setting priorities in research and training of research staff is now critical.

The two cancer registries founded in Hanoi and Ho Chi Minh City have produced the first reliable data on cancer incidence in Vietnam. Keeping these registries working continuously and effectively and founding new registries in particular in rural areas are very important for cancer control management in Vietnam.

References

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