

Meeting Report

# Epidemiologic report of gynecologic cancer in Thailand

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Cancer has been the most common cause of death in Thailand from 2002 (65.4/100,000/year in 2002). With regard to leading cancers in Thailand for female population, the highest incidence falls into cervical cancer (25/100,000/year) followed by breast, liver and bile duct, bronchus and lung, colon and rectum, and ovarian cancer. In 2003, there were 6,243 new cases of cervical cancer with the death of 2,620 women. Therefore, in Thailand, seven women die from cervical cancer each day. However, the incidence of cervical cancer in Thailand is decreasing. The important factor contributed to this decreasing is the implement of Thailand dual-track strategy cervical screening program using both Pap smear and visual inspection with acetic acid (VIA)-cryotherapy. Learning about the epidemiologic data of gynecologic cancer could raise public awareness and play a part in establishing measures for prevention, control and treatment of the cancer which will contribute to the better health of women, and of course, decrease the expense used in various modalities of treatment.

**Key Words:** Gynecologic cancer, Epidemiology, Thailand

## INTRODUCTION

Thailand is located in South-east Asia, in the center of Indochina. Thailand borders Myanmar to the north and west, Lao to the northeast, Cambodia to the east, and Malaysia to the south. Its southwestern coast stretches along the Andaman Sea, and its southern and southeastern coastlines border the Gulf of Thailand. Thailand covers 513,155 km<sup>2</sup> and is divided into 76 provinces, within four geographical regions: the northern, northeastern, southern and central. Its capital city is Bangkok. The population is 65.4 million. Half of the population is in the agricultural sector. Ninety five percent of them are Buddhists.<sup>1</sup>

The first population-based cancer registry started in 1986 in the province of Chiang Mai, followed by Khon Kaen in 1988, Songkhla and Bangkok in 1990, and Lampang in 1993.<sup>2</sup>

The estimated number of new cancer cases in the year of 1999 was 31,582 men and 33,678 women. These correlated to age-standardized rates of 127.7 per 100,000 for men and

125.5 per 100,000 women. The national estimates of the 10 leading cancers in men and women are shown as age standardized rates (ASR) in Fig. 1. With regard to leading cancers in Thailand for the male population, the highest incidence falls into liver and bile duct cancer followed by bronchus and lung cancer, colon and rectum cancer and oral cavity cancer. More of our concern here is cancer incidence in Thai women. It is cervical cancer which accounts for approximately 25/100,000/year and followed by breast cancer. Coming in second place, it is the breast cancer which is found 20/100,000/year. Liver and bile duct cancer comes third, followed by bronchus and lung cancer, colon and rectum and ovarian cancer ranks sixth. So, in short, cervical cancer is the most commonly found cancer, and two out of the sixth most common cancers in women are gynecologic cancers.

In the year of 1996, cancer was the third most common cause of death in Thailand by the rate of 48.9/100,000/year. In 1999, cancer turned out to be the second most common cause of death by the rate of 60.5/100,000/year. From 2002 up to the present, cancer is the most common cause of death in Thailand (65.4/100,000/year in 2002).<sup>3</sup>

It might be interesting to take a look at key providers for gynecologic cancer in Thailand. In 2004, the number of general obstetricians and gynecologists was 1,983 which could be calculated in terms of ratio as one general obstetrician and gynecologist for 15,000 women. There were 110 gynecologic oncologists, 101 radiation oncologists, 235 pathologists, 386 cyto-technicians/screeners and among these, there are many nurses which number 78,182.<sup>4</sup>

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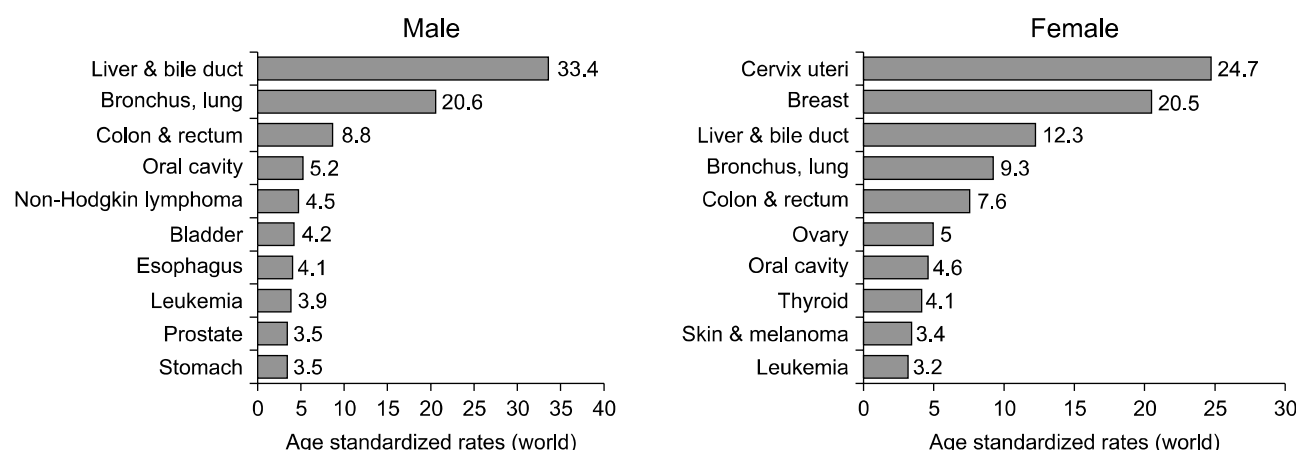


Fig. 1. Leading cancers in Thailand (estimated), 1999.

Table 1. Stage distribution of cervical cancer in Ramathibodi Hospital

Yr	2001	2002	2003	2004	2005	2006	2007
Staging							
I	30	33	30	38	33	56	120
II	81	68	65	63	65	83	71
III	98	46	60	54	47	53	20
IV	16	9	14	14	12	8	1

## GYNECOLOGICAL CANCER

### 1. Cervical cancer

In 2003, there were 6,243 new cases of cervical cancer with the death of 2,620 women. Therefore, in Thailand, seven women die from cervical cancer each day.<sup>5</sup> However, the incidence of cervical cancer in Thailand is decreasing.<sup>6</sup> The important factor contributed to this decreasing is the implement of the Thailand dual-track strategy cervical screening program using both Pap smear and visual inspection with acetic acid (VIA)-cryotherapy. And interestingly, data from the Ramathibodi hospital, Bangkok showed that the most common stage has changed from stage III in the year 2001 to stage II in 2002 and stage I in 2007 (Table 1) which is a good trend in down staging.<sup>7-9</sup> The most common histologic type was squamous cell carcinoma with adenocarcinoma in 11-18% of the patients.<sup>2</sup> The peak incidence is at the age of 45-55 years.<sup>7,8</sup> The survival rate of cervical cancer at the Ramathibodi hospital, Bangkok is comparable with others centers in different countries.<sup>9</sup> As mentioned above, in order to cope with the disease, attempts have been made to set up screening programs, the dual tract strategy (Pap smear and VIA) which cover the time span of 5 years starting in 2005. The target population is women aged 30-60 years, which number 14 million out of the total population of 65 million. The screening coverage goal targets at 80% (11.5 million) in the 5-year time. The program is organized by the Department of Medical Service for Pap smear (aged 35-60 years), and the Department of Health for

VIA-cryotherapy (aged 30-45 years). The governmental campaign is quite successful in a certain level with the Pap smear in general and VIA-cryotherapy in low-resource setting areas of Thailand.

With regard to the five most frequent HPV types in women with cervical cancer in Thailand, HPV 16 accounts for 52.3% of cervical cancers and HPV 18 accounts for 19.3% of cervical cancers. HPV 58, 52, 33 accounts for 5, 3, and 2.1% of cervical cancer, respectively.<sup>10</sup> The prevalence of HPV infection of the cervix of 1,741 females aged 15-74 years who had normal cytologic test in Lampang and Songkhla provinces was found to be 6.3% (110 women). The three most common HPV types were HPV 16, 52, and 72 respectively. The age-standardized prevalence rate of positive HPV DNA in women in Lampang was 9.1% in comparison with 3.9% in Songkhla province. The risk factors of the positive HPV DNA were ever having Herpes simplex virus infection and having husbands who had extra-marital sex.<sup>10</sup> Multiple-type HPV infection at the same time was found in 1.7% of positive HPV women in Lampang and 0.7% in Songkhla.<sup>11</sup> In the Songkhla province, the prevalence of HPV infection was approximately the same among every age group which is different from Lampang, in which the prevalence is highest at the age of younger than 25 years. Later, when the age is higher, the prevalence becomes lower, which is similar to the trend in the western countries.<sup>12</sup>

### 2. Ovarian cancer

Ovarian cancer is the sixth most common cancer in females, but the second gynecologic cancer in Thailand.<sup>8</sup> Its incidence is 5.0/100,000/year. The trend of the incidence is increasing.<sup>6</sup> New cases per year are approximately 1,700. And the peak incidence falls in the age group of 45-60. The most common stage is stage III (Table 1) which is similar to other countries in the world.<sup>6,8</sup> The two most common histology types are serous and mucinous cystadenocarcinoma.<sup>2</sup> The five-year survival for stage I, II, III, IV are 90%, 80%, 25% and 15% respectively, which is a little better than the FIGO statistics.

Recurrence is still the main obstacle to better outcome.

### 3. Uterine cancer

Uterine cancer is the third most common gynecologic cancer in Thailand with the incidence of 2.8/100,000/years. The incidence of uterine cancer in the Thai population is obviously increasing. The peak incidence is 50-60 years of age. The most common stage is stage I followed by stage III, IV and stage II.<sup>7,8</sup> The survival is good compared with other types of gynecologic cancers.

### 4. Gestational trophoblastic neoplasia

The incidence of gestational trophoblastic neoplasia (GTN) is 0.3/100,000/year, and the other types of gynecologic cancers including vulva cancer, vaginal and tubal cancer are rare and account for less than 1% of all gynecologic cancers in Thailand.<sup>2</sup>

### 5. Breast cancer

Breast cancer is the second most common cancer in Thai women. The incidence of the whole country is 20.5/100,000/year, and in terms of the peak incidence, it's from the age of 35 years which is quite early when compared to other types of cancers. It is at stage II that we found the most common incidence at Ramathibodi hospital followed by stage I, stage III and stage IV. From the data of the whole country, the spread of breast cancer is locoregional with the distance site in the minority group. Concerning the histologic type of breast cancer, ductal carcinoma is the most frequently seen. The trend in incidence of breast cancer continues to increase over time. The overall survival rate of Thai breast cancer patients is approximately 80%.

## CONCLUSION

Learning about the epidemiologic data of gynecologic cancer could raise public awareness and play a part in establishing

measures for prevention, control and treatment of the cancer, which will contribute to the better health of women, and of course, decrease the expense used in various modalities of treatment.

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