

RESEARCH COMMUNICATION

Screening for Cervical Cancer, Results from Thailand

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Abstract

Pap smears are recommended as a general screening method to early diagnose cervical cancer in order to decrease morbidity and or mortality. Women in Thailand have a relatively high risk. Here, the author summarizes reported results from cervical screening programs set in Thailand. A total of 101,107 subjects of screening were included. The overall prevalence of cervical cancer was 0.38% (383 cases). The overall prevalence of pre-cancerous cases and other lesions (infection and inflammation) were 2.4% (2,405) and 5.3% (5,358). There was no significant association between the prevalence rate and the region. These results document the importance of cervical cancer in Thailand and the high detection rate of pre-cancerous lesion supports the utility of screening programs for secondary prevention of cervical cancer. Health education seems to play an important role in success of the cervical cancer screening program for Thai females.

Key Words: Cervical cancer - Pap smear - screening - Thailand

Asian Pacific J Cancer Prev, 7, 329-330

Introduction

Cervical cancer is the third most common cancer affecting women (Dunleavy, 2004). While not in itself a sexually transmitted disease, cervical cancer is linked to the presence of the human papilloma virus, which is sexually transmitted (Dunleavy, 2004). Concerning prevention of cervical cancer, efforts directed at primary prevention of the disease are limited and secondary prevention through screening appears to be the most promising intervention available in controlling the disease. Biran and Levy noted that screening for cervical carcinoma by Papanicolaou (Pap) smears diminished the incidence of cervical cancer in screened populations (Biran and Levy, 2004).

In recent years, there have been ongoing debates over the effectiveness of available cervical screening modalities such as visual inspection of the cervix after applying acetic acid (VIA), human papillomavirus (HPV) testing, Pap smear, and combinations of screening tests (Dunleavy, 2004). Pap smears have been recommended for many years as general screening methods to early diagnose cervical cancer in order to decrease morbidity and or mortality (Mandelblatt et al., 2002; Lea and Miller, 2001). Lea and Miller noted that annual screening of cervical cells had been shown to reduce the incidence of cervical cancer by 78% (Lea and Miller, 2001), and may even be effective in rural areas (Katz, 1998). Here, the author summarized previous reported results from cervical screening programs in several different settings in Thailand.

Materials and Methods

A literature review of previous reports of cervical cancer screening by Pap smear in Thailand was performed using PubMed (www.pubmed.com). The author also reviewed published works in all 256 local Thai journals, which is not included in the international citation index by the database Thai Index Medicus. Reports that did not present the results from the cervical cancer screening using Pap smear performed by medical workers were excluded. Reports that considered previously known cases of gynecological tumor were also excluded. The available reports were collected and extracted for the data on prevalence of cervical cancer for further metanalysis. The summative prevalence of cervical cancer was calculated. Chi square test was used for assess the association between the prevalent rate and the setting of the study. $P < 0.05$ was accepted as a statistical significant level. SPSS 11.0 for Windows was used for statistical analysis in this study.

Results

According to the literature review, 6 reports (Nopdonrattakoon, 1993; Veskijkul et al., 1991; Kanwatanasirikul, 1980; Kanjanavirojkul and Sripa, 1995; Pongnikorn, 1995; Khunchairuk, 2003) were recruited (Table 1) including 101,107 subjects. The overall prevalence of cervical cancer was 0.38 % (383 cases), with values of 2.39 % (2,405) for pre-cancerous lesions and 5.30 % (5,358) for

other conditions like infection and inflammation. There was no significant association between the prevalence rate and the regional setting of the study (Table 1).

Discussion

Women in Thailand have a relatively high risk of developing cervical cancer (Punyaratabandhu et al., 1982). Vatanasapt et al noted that an appropriate cervical cancer screening program can improve the recent prevalence and lead to better results of treatment (Vatanasapt et al., 2002). Swaddiwudhipong et al said that greater efforts should be made to encourage the use of screening among the older women (Swaddiwudhipong et al., 1995). Thai women immigrants in Australia have a reported regular Pap smear rate of only 39 % (Jirojwong et al., 2001). Similar low rates among the rural female populations in Thailand can be expected and efforts are needed to increase the coverage rate.

The present study demonstrated an overall prevalence rate for cervical cancer of about 0.38 %, with 2.4 % for pre-cancerous lesions, relatively high. In addition, the high rate of inflammation and infection in this study also points to risk of future neoplasia and the need for health education for Thai females to avoid the cervical infection for primary prevention (Thomas et al., 1996). One other problem is the fact of a 41% loss to follow-up that has been reported in Thai cases of abnormal Pap smears (Thinkhamrop et al., 1998). Clearly an emphasis on convenient availability of treatment facilities is necessary.

Additional attempts to increase the coverage rate of Pap smear such as the use of mobile units should be considered (Swaddiwudhipong et al., 1995). In addition to the classical Pap smear by medical workers, an alternative method to perform Pap smear such as a self-administered device should be considered. Recently, Sanchaisuriya et al said that the Kato device, a self-administered device for Pap smear, was generally well accepted by Thai women (Sanchaisuriya et al., 2004). However, many of those with a higher educational background were more sceptical towards the device than their counterparts from the villages (Sanchaisuriya et al., 2004). Therefore, the usage of this device for the rural Thai populations, who usually have low educated might not be successful. Health education seems to play an important role in success of the cervical cancer screening program for Thai female populations and this needs to be integrated into future cancer control programs.

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Table 1. Previous Reports about Cervical Cancer Screening by Pap Smear in Thailand

Authors	Setting*	Number of screenees	Prevalence of cervical cancer (%)
Nopdonrattakoon, 1993	Northern	1,193	0.07
Veskijkul et al., 1991	Southern	958	0.30
Kanwatanasirikul, 1980	Northern	25,004	0.46
Kanjanavirojkul and Sripan, 1995	Northeastern	53,526	0.40
Pongnikorn, 1995	Northern	13,970	0.34
Khunchairuk, 2003	Central	6,456	0.03

* classified according to the region of Thailand, there are 5 regions of Thailand: northern, eastern, southern, central and northeastern