Cervical cancer: A preventable disease?

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After the press release of the successful study of the vaccination against the oncologic human papillomvirus (HPV type 16,18) infection and the ability of the vaccine to prevent the development up to 70% of cervical cancer worldwide, this brings the cervical cancer come into public attention again and shades the light that the vaccination will become the beginning of the end of this cancer.

There are over 100 human papillomavirus (HPV) types. These viral infections may manifest as skin warts in the bodies mainly on hands and feet, and genital warts such as penile, vaginal and anal warts or the so called condyloma. This genital virus (except the skin warts) is sexually transmitted and most will not cause cervical cell change. Most HPV infections go away on their own. Only a small number of HPV infection, mainly type 16,18, will not develop any symptoms initially. But persistent infection will gradually cause cervical cell change from normal to precancerous and finally to a full blown malignant tumor. This changes sometimes take up to twenty years from the onset. HPV role in triggering off cervical cancer was discovered in 1983 and cervical cancer is now considered as a sexual transmitted disease.

Any person who is sexually active can be exposed to these types of HPV. It is spread through skin to skin contact, not through an exchange of bodily fluid. In United States, about 20 million people (men and women) are thought to have an active HPV infection and nearly 3 out of 4 Americans between the ages of 15-49 have been infected with genital HPV in their lifetime and 14,000 cases of cervical cancer are diagnosed each year.

According to Assoc. Prof., Dr. Chaiyod Thirapakawong, Head of Gynaecologic Oncology Unit, Siriraj Hospital, cervical cancer is still the most common cancer among Thai women which affects about 20 per 100,000 women each year. The prevalence is more in the Northern part than in the south. At Siriraj Hospital, there are more than 500

new cases per year. The cure rate is depending on the stage of the disease at time of diagnosis with 80-90% survival at 5 years after treatment in stage 1 and 40-60% cure in stage 2 and 3. Stage one cervical cancer is defined when the cancer is still confined in the cervix. This stage is having the best prognosis and usually symptom-free. Unfortunately, less than 20 % of patients were diagnosed early enough. This reflects the unawareness of the Thai women and the effective screening campaign is under optimum.

High risk women are among those who are having early sex, multiparity, multiple sexual partners or highly promiscuous women, monogamous women with promiscuous husbands, low socio-economic and history of having other sexual transmitted diseases.

Men also play a role as carriers or vectors for HPV infection among women. As reported, the risk of cervical cancer among monogamous women greatly increased with the number of sexual partners their husbands had had, as did those subsequent wives of husbands whose previous wife developed cervical cancer.

To screen for cervical cancer, women should get her first Pap smear and yearly vaginal examination at the age of 30. Pap smear is carried out during vaginal exam by taking a swab of cervical cells from the vaginal discharge for microscopic examination to detect the cell changes. If any abnormalities occur, appropriate treatment can be done timely in a precancerous stage which offers a favorable result.

At present, HPV test is also available in some hospitals and can be done in combination with Pap test for high risk women or who have a questionable result. If both tests are negative, they are unlikely to develop cervical cancer, then, the next screening should not have to be done for three years as preliminarily recommended by American Cancer Society.

Since there is strong evidence that persistent infection with high risk HPV types is the necessary cause of cervical cancer, HPV 16 accounts for more than 60% of cervical cancers, with HPV 18 adding about another 10%, will there be an effective vaccine against these HPV infection?

Asst. Professor, Dr. Surasak Angsuwathana, Family Planning Unit, Department of Obstetric and Gynecology, Faculty of Medicine Siriraj Hospital, who is carried out a phase III study of the vaccine in Thai women, says that vaccination trial against HPV

16/18 infection has been shown to be safe and immunogenic and has prevented incident and persistent infection. However, there is no sufficient data currently available to estimate the duration of vaccine-induced protection or how long it needs for a booster.

In the near future, a prophylactic vaccination directed at young adolescent women is likely to be cost-effective, especially in the developing countries where the screening program are limited or not available and the incidence of cervical cancer is high. By that time, vaccination will be the true beginning of the end of the cervical cancer worldwide.