RESEARCH COMMUNICATION

Is it Relevant to Screen Women Younger than 26 Years for Precancerous and Malignant Cervical Lesions?

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Abstract

Cervical cancer is a serious health problem and most of the cases occur in less developed countries where effective screening systems are lacking. The aim of our present study is to delineate the age for early detection of precancerous cervical lesions. Cervical smears were screened (Pap test) over a period of four and half years from January 2000 to June 2004. The pattern of lesions was found to be almost same among the age groups of 26 to 35 years and 36 to 45 years. This result tempted us to think that detection of cervical lesions at an early age younger than 26 years may be an important step forward towards complete cure.

Key Words: Pap test - early age - precancerous cervical lesion

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Introduction

Worldwide, cervical cancer is the second most common malignant disease among the women, with nearly 80% of the cases arising in less developed countries (Waggoner, 2003). The primary cause in development of cervical cancer is human papillomavirus (HPV), which is acquired mainly through sexual activity (Bosch et al., 1995; Chichareon et al., 1998; Ngelangel et al., 1998). Other associated factors include sexual activity starting at a younger age (less than sixteen years), a high total number of sexual partners (more than four), history of genital warts, and smoking (Daly et al., 1998; Kjellberg et al., 2000; Slattery et al., 1989). The Papaniculaou test (Pap's test) is an effective screening test for cervical premalignant and malignant lesions (Talukder et al., 2002). In our part of the world girls generally get married at a very young age, usually in their mid and late teens. As sexual activity at young age is a risk factor for cervical cancer and early detection can prevent the

development of malignant disease effectively, we here assessed the occurrence of precancerous lesions in different age groups in Nepalese population.

Patients and Methods

Samples of cervical smears submitted in our hospital for Pap test over a period of four and half years from January 2000 to June 2004 were analysed to study the patterns of precancerous atypical squamous cell of undetermined significance (ASCUS), low and high-grade squamous intraepithelial lesion (LSIL and HSIL) and malignant squamo-cellular carcinoma of cervix in a total of 2288 females in different age groups. Precancerous and malignant lesions were diagnosed in 65 patients.

Results

The results are tabulated in Table 1. It is evident from

Table 1. Percentage Incidences of Precancerous and Malignant Lesions of the Cervix in Different Age Groups

	Age group				
	16 - 25 yrs.	26 - 35 yrs.	36 - 45 yrs.	46 - 55 yrs.	56 - 65 yrs.
Type of cervical lesion					
ASCUS	1.54%	3.08%	7.69%	1.54%	1.54%
LSIL	4.62%	18.46%	20%	6.15%	-
HSIL	-	9.23%	9.23%	4.62%	1.54%
Squamo-cellular carcinoma.	3.08%	1.54%	3.08%	1.54%	1.54%

n = 65

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that the pattern of lesions is almost the same amongst the age groups of 26 to 35 and 36 to 45 years.

Discussion

A new terminology for cytologic diagnosis of cervical lesions had been introduced by Bethesda System that included: (1) Atypical squamous cell of undetermined significance (ASCUS), (2) Low-grade squamous intraepithelial lesion (LSIL), (3) High-grade squamous intraepithelial lesion (HSIL) and (4) Squamo-cellular carcinoma (Rossetti et al., 2000). The screening was perfored following this system. It has been reported that in North America the median age at diagnosis of cervical cancer is 47 years but nearly half of the cases were diagnosed before the age of 35 years (Sung et al., 2000). In a Chinese population the high incidences of human papilloma virus infection was found among the women of 20 to 30 years and cervical intraepithelial neoplasm (CIN) was found among the women 30 to 50 years. Further, they suggested women ranging from 30 to 50 years should receive cytologic screening or coloscopic examination regularly (Jin et al., 2002). A study of a group of patients in Bangladesh showed the majority of the premalignant and malignant lesions to occur in the age group of 21 to 30 years (Talukder et al., 2002). In active duty United States Air Force women, the disease was associated mainly with age younger than 30 years, squamous intraepithelial lesions being found at ages 21 to 25 years and ASCUS at ages younger than 30 years (Frommelt et al., 2000). In the present study the pattern of the precancerous and malignant lesion of cervix was found to be almost same in both 26 to 35 and 36 to 45 age groups among this Nepalese population. The result suggests that it would be wise to screen for cervical lesions in ladies even younger than 26 years for the sake of early detection of precancerous lesions in the cervix.

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References

- Bosch FX, Manos MM, Munoz N, et al (1995). Prevalence of human papillomavirus in cervical cancer: a worldwide perspective. J Natl Cancer Inst, 87, 796-802.
- Chichareon S, Herrrero R, Munoz N, et al (1998). Risk factors for cervical cancer in Thailand: a case-control study. J Natl Cancer Inst, 90, 50-6.
- Daly SF, Doyle M, English J, et al (1998). Can the number of cigarettes smoked predict high-grade cervical intraepithelial neoplasia among women with mildly abnormal cervical smears? Am J Obstet Gynecol, 179, 399-402.
- Frommelt R, Peterson M, O'Leary T, et al (2000). Pap smear screening in an equal-access health care system. Yield of

- screening and predictors of squamous intraepithelial lesions and atypical squamous cells of undetermined significance. Ann Epidemiol, 10, 466.
- Jin L, Wang Y, Lang J, et al (2002). Systematic evaluation of the new screen methods of cervical intraepithelial neoplasm. Zhonghua Fu Chan Ke Za Zhi, 37, 157-60.
- Kjellberg L, Hallmans G, Ahren AM, et al (2000). Smoking, diet, pregnancy and oral contraceptive use as risk factors for cervical intra-epithelial neoplasia in relation to human papillomavirus infection. Br J Cancer, 82, 1332-8.
- Ngelangel C, Munoz N, Bosch FX, et al (1998). Causes of cervical cancer in the Philippines: a case control study. J Natl Cancer *Ins*, **90**, 43-9.
- Rossetti D, Gerli S, Saab JC, et al (2000). Atypical squamous cells of undetermined significance (ASCUS), low-grade squamous intraepithelial lesion (LSIL), high-grade squamous intraepithelial lesion (HSIL) and histology. J Med Liban, 48, 127-30.
- Slattery ML, Robinson LM, Schuman KL, et al (1989). Cigarette smoking and exposure to passive smoke are risk factors for cervical cancer. JAMA, 261, 1593-8.
- Sung H, Kearney KA, Miller M, et al (2000). Papanicolaou smear history and diagnosis of invasive cervical carcinoma among members of a large prepaid health plan. Cancer, 88, 2283-9.
- Talukder MS, Huq MH, Haque A (2002). Evaluation of 500 cases of Pap's test in Mymensingh. Mymensingh Med J, 11, 26-8. Waggoner SE (2003). Cervical cancer. Lancet, 361, 2217-25.