

Cervical Cancer Screening On 1000 Healthy Asymptomatic Women Residing In Slum of Rajshahi City of Bangladesh

Ferdausi M¹, Ashraf F², Rahman N³, Rahman Z⁴, Mustanzid F⁵

Abstract

Background: Cervical carcinoma is an important cause of mortality among adult women. **Objective:** The purpose of the present study was to detect the pre-cancerous condition of cervix in women. **Methodology:** This cross sectional study was carried out in the OPD of a tertiary care hospital of Rajshahi City in Bangladesh during the year June 2010 to August 2011. Healthy asymptomatic women residing in slum of Rajshahi city with a marital age of 8 years and above were included as study population. VIA test was performed in all women. The VIA positive cases were invited for colposcopy and directed biopsies were obtained from women who were colposcopically positive. **Result:** A total number of 1000 women were studied. Among them 80(8%) women were VIA positive. These positive cases were also referred for colposcopy. Out of the 80 cases, 26 (32%) were colposcopically normal and 50(63%) were CIN-I and 4(5%) women were CIN II. Directed biopsy was done among colposcopically positive group. Histopathological examination shows 44 (82%) were CIN-I and 4(7%) were CIN- II and 6(11%) were chronic cervicitis. **Conclusion:** Cervical screening of the slum area women shows an important number of women suffering from precancerous condition of which CIN-I is the most common. [J Shaheed Suhrawardy Med Coll, December 2015;7(1):14-17]

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Introduction

Cervical cancer is the most common reproductive tract cancer in women¹. Like other developing countries, cancer of the cervix is also a major cause of cancer related suffering and premature death in Bangladesh; however, yet it is largely preventable disease². Cervical cancer prevention efforts have been focused on screening of the women using Papanicolaou smears and treat pre-cancerous lesions when it has been detected.

Worldwide 493 000 new cases were detected and 273 000 deaths reported in 2002; with an age-standardized incidence rate of 16.2 per 100 000 women and age-standardized, mortality rate of 9 per 100 000 women; 85% of these cases were in developing countries¹. In the same year 120 000 new

cases and 80 000 deaths from cervical cancer were reported in India and India accounts for one-fifth of the global burden of cervical cancer². Cervical cancer is one of the important causes of women mortality and morbidity in Bangladesh. Bangladesh and India have an annual incidence of cervical cancer 11956 and 125952 respectively². In Bangladesh, it constitutes about 22-29% of the female cancer in different areas of the country. In the absence of any screening program, most of these women come to the doctor at an advanced stage when hardly any curative management can be offered. In one of the World Bank reports, it is mentioned that the mean interval for progression of cervical precursors to invasive cancer may be as long as 10-20 years³.

Screening should ideally be cheap and should be used only as

1. Dr. Munira Ferdausi, Associate Professor, Department of Obstetrics and Gynaecology, Shaheed Suhrawardy Medical College, Dhaka
2. Dr. Fatema Ashraf, Professor, Department of Obstetrics and Gynaecology, Shaheed Suhrawardy Medical College, Dhaka
3. Dr. Nourin Rahman, Graduate Teaching Assistant, Dept of Economics, East West University, Dhaka
4. Zara Rahman, Bioelectrical Engineering, Hofstra University, New York, USA
5. Fahima Mustanzid, Lecturer, Anwar Khan Modern Medical College, Dhaka

Correspondence

Dr. Munira Ferdausi, Associate Professor, Department of Obstetrics and Gynaecology, Shaheed Suhrawardy Medical College & Hospital, Sher-E-Bangla Nagar, Dhaka, Bangladesh; Email: onlymunira@yahoo.com; Cell No: +8801711467267

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an initial examination⁴. Those who are found to have positive test results are referred to a physician for further diagnostic investigations and treatment. CIN can be treated easily by any of the methods like cryotherapy, electro-coagulation, cold coagulation, Laser ablation and LEEP⁵. In this country the risk factors of cancer cervix is prevailing, like-early marriage, early initiation of sexual activity, multiparity and low socio economic condition². Many a cases without proper diagnosis total Abdominal Hysterectomy (TAH) has been done in very early age of a female only for the fear of cancer cervix. These sorts of management could never stand as favorable treatment; rather it creates a lot of hazards to the patient and her family. So it is the best way to have VIA at least 3 yearly in women of active sexual life. Bangladesh Govt. in collaboration with UNFPA has taken the strategy for cancer cervix screening in a large scale. As a part of national program Rajshahi Medical College has started cancer cervix screening with VIA. Therefore, the purpose of the present study was to detect the pre-cancerous condition of cervix in women.

Methodology

This cross sectional study was carried out in OPD of Gynaecology & Obstetrics Department at Rajshahi Medical College Hospital, Rajshahi during the year of June 2010 to August 2011. Healthy asymptomatic women residing in slum named as T-Badh, Bihari Colony, Seroil Colony, Maldha Colony etc. of Rajshahi city were selected as study population. The subjects with the marital age 8 years and above were included in this study. After selection of the subjects, the objectives, nature, purpose and potential risk of all procedures used for the study were explained in details and informed written consent from patients were taken. The women emptied their bladder before lying down in the table within good privacy. The cervix was exposed by an adequate sized Cusco's self-retaining bivalve vaginal speculum. Acetic acid (5%) was applied to the cervix and after waiting for 1 minute, the cervix was inspected using a 100 watt good light source. A normal cervix has no white lesions. The finding of the dense, opaque, well-defined acetowhite lesions touching the squamocolumnar junction or cervical growth turning acetowhite were designated as VIA positive. A diagnosis of low cervical intraepithelial neoplasia (CIN) showed pale white lesions that might or might not abut the squamocolumnar junction. Areas defined as high grade CIN has dense white lesions with sharp borders in which one border of these high grade lesions always abutted the squamocolumnar junction. The positive cases were invited for colposcopy. Directed biopsies were obtained from women for histopathology who were colposcopically positive.

Results

Total 1000 cases were studied. Among them 92% were VIA negative and 8 % were VIA positive (Fig 1). Total 1000 cases were studied. Among them (8%) are VIA positive. These

positive cases were again evaluated colposcopically. Out of the 80 cases, 26(32%) were colposcopically normal, 50(63%)

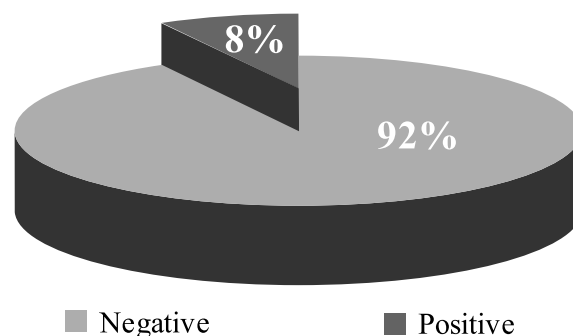


Fig 1: Frequency distribution of patient by VIA

were CIN-1 and 4(5%) were CIN-II (Figure 2). Colposcopically who were diagnosed as a positive cases directed biopsies were taken from them & tissues were sent for histopathological examination. Histopathological examination shows 44 (82%) are CIN-1 and 4 (7%) were CIN-II and 6(11%) were chronic cervicities (Figure 3). The age range of study group was between 25-65 years. In Between 25-40 age group VIA positive cases were 75 & between 45- 50 age group VIA positive cases were 5. Among the positive (80) Cases CIN-I (49) was prominent between 30-40 age group (Table 1).

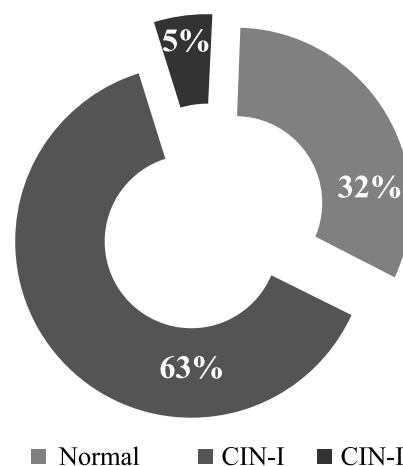


Fig 2: Colposcopic findings among VIA Positive cases

Discussion

In developing countries, cervical cancer remains a clinical problem of public health. Eighty percent of the approximately 400,000 new cases of cervical cancer each year occur in such settings⁶. Due to successful screening programs, cervical cancer rates in developed countries have dropped remarkably⁷. However, in most developing countries, screening programs are virtually nonexistent. Reasons for this relate primarily to lack of public awareness and the fact that screening via cytology is an untenable proposition for mass screening in such low-resource settings⁸. Matching the resources available to provide cervical cancer screening in such settings requires alternative means of providing testing and treatment.

Current evidence indicates that depending on local conditions and locally-made decisions, visual inspection of the cervix with acetic acid wash, coupled with a benign form of therapy, such as cryotherapy, could hold promise as a means of testing and treatment. By adapting resource-appropriate technologies and building local consensus regarding clinically driven public health approaches that are safe and feasible, the challenge of reducing the mortality from cervical cancer in developing countries can yet be met.

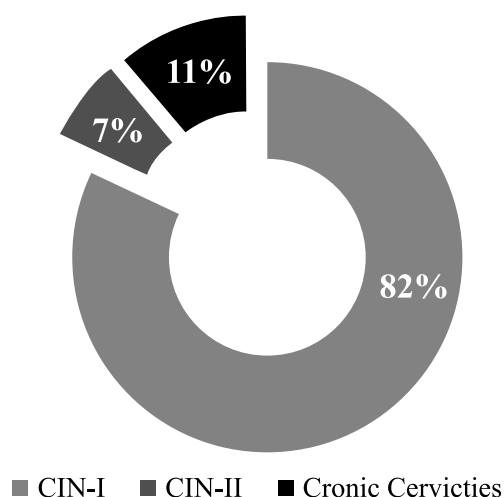


Fig 3: Histopathological Report among Colposcopically positive cases

Immunization against Human Papillomavirus (HPV) has been determined to be a major factor for the development

of high technology base. In developed countries females are rescued only by adequate screening program. The disparity between developed & developing countries remains in the fact that cytological screening with pap's smear is costly, needs technical supports & good number of cytopathologists. So by no means it could be a screening method in low resource setting because of an inability to meet requirements such as trained human resources, supplies, mechanisms for delivery of samples and results, laboratory infrastructure and requisite financial resources. Studies have suggested that VIA screening once in a lifetime is a cost effective method to reduce disease burden in a country. A wide range of healthcare providers, including trained medical and non-medical personnel, can provide VIA after 5-10 days of competency-based training. Thus in the search of an easy, low cost & effective method- VIA, which means 'visual inspection of cervix with acetic acid' come up. Up to now good number of study has been carried out & now it is well recognized that VIA is the best way of cancer cervix screening in low resource settings.

The prevalence of cervical cancer compared to other cancers in women is high, 80 percent of women come for treatment at the advanced stage. One of the most important reasons for the continued high prevalence of cervical cancer in Bangladesh is the lack of an effective screening program. Screening is the search for unrecognized diseases or defects in a large group of apparently healthy individuals in the community by means of rapidly applied tests. The study was conducted as a part of effort to detect the cervical precancerous lesion in the healthy asymptomatic women using visual inspection aided by acetic acid. Several reports suggest that visual

Table 1: Frequency of patient by age

Age	Total	VIA Positive				Total Positive	P
		VIA Nrgative	Normal	CIN 1	CIN 2		
25-30	350	335	15	0	0	15	0.004
30-35	195	160	5	29	1	35	
35-40	245	220	4	20	1	25	
40-45	95	95	0	0	0	0	
45-50	75	70	2	1	2	5	
50-55	20	20	0	0	0	0	
55-60	10	10	0	0	0	0	
60-65	10	10	0	0	0	0	

*Student t test was done to see the test of significance; t test was done and it was shown that there were significant differences between these group.

of cervical cancer and it has also been introduced most especially in the developed world as another method of primary prevention against cervical cancer⁴. It is therefore imperative that efforts should be made to explore alternative methods of detecting the precancerous stage and early stage of cervical cancer. This alternative should be easily available, cheap, less labor intensive and devoid

inspection of the uterine cervix after application of cervical lesion. In consistent with these findings, an Italian study involving 2400 women, colposcopy identified an atypical transformation zone (ATZ) in 312 women; 307(98.4%) were identified as having distinct white cervical epithelium on necked eye examination after acetic acid application by a medical student¹³. Biopsies were

taken from the 312 ATZ revealed benign lesions in 169 (54.2%) and cervical intraepithelial neoplasia CIN-1 or worse lesions in 143 (45.8%). This is one of the earliest reports indicating that a cervix at risk can be identified by recognizing acetowhite areas with the necked eye. A current study involving 5692 women aged 16-60 years, conducted in southern California, utilized "speculoscopy" which is 4-6 times magnified by examination of 5% acetic acid impregnated cervix by a hand held monocular optic to detect acetowhite areas, by a light source in the upper blade of the vaginal speculum performed by a 186 trained practitioners¹⁴. On speculoscopy, 688(12.1%) women were positive. 410 attended for colposcopy and biopsies were obtained from all of them. A total of 32 high grade and 191 low grade lesions were diagnosed histologically.

The results of the current study and other reported studies indicate that VIA is a simple and objective test. The result of this procedure is available immediately, allowing an algorithm of further investigations to be carried out for the identification of cervical lesions. It has been shown that follow up colposcopy and pre-invasive lesions can be performed immediately which not only avoids recalls but also increases compliance to diagnostic investigation and treatment. So this study suggests that it is essential to take the women who are at high under coverage of screening program for sharp decline of advanced carcinoma of cervix.

Conclusions

Cervical screening of the slum area women shows an important number of women suffering from precancerous condition of which CIN-1 is the most common.

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