Incidence of Cervical Cancer in Grass Root Level Center in Bangladesh

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Abstract: *Background:* Cervical cancer is a major health issue, particularly in developing countries like Bangladesh, where the incidence and mortality rates are higher compared to global averages. Early detection through screening is critical. *Objective:* This study aimed to determine the incidence of cervical intraepithelial neoplasia (CIN) among women aged 24-59 years attending a VIA screening camp at UHC, Tanore, Rajshahi, and assess the effectiveness of VIA screening. *Method:* A cross-sectional observational study was conducted in January 2020 at the Outpatient Department (OPD) of UHC, Tanore, Rajshahi. A total of 1,200 women aged 24-59 years participated in the screening program. Women were screened for cervical abnormalities using VIA (Visual Inspection with Acetic Acid). Demographic data were collected through a structured questionnaire, and women who tested positive for abnormalities were treated with thermocoagulation or referred for further management. *Results:* Out of 1,200 women, 18 tested positive for cervical abnormalities (1.5%), resulting in an incidence rate of 2.44 cases per 10,000 women per week. Of these, 13 women (72.2%) received thermocoagulation treatment, while 5 women (27.8%) with large lesions were referred for further evaluation. Additionally, 6 women (0.5%) had breast lumps and were referred for FNAC at Rajshahi Medical College Hospital (RMCH). The majority of women (58.67%) were aged over 35 years, and 95% were housewives. *Conclusion:* VIA screening is an effective, low-cost tool for early cervical cancer detection in low-resource settings. Regular screening and early treatment can significantly reduce cervical cancer prevalence in Bangladesh.

Keywords: Cervical cancer, VIA screening, Incidence rate, Thermocoagulation.

Article at a glance:

Study Purpose: *To determine the incidence of cervical abnormalities and assess VIA screening's effectiveness in women aged 24-59 years at UHC, Tanore, Rajshahi.*

Key findings: *1.5% of women tested positive for cervical abnormalities (incidence rate: 2.44 cases/10,000 women/week). 72.2% received thermocoagulation treatment, while 27.8% were referred for further care. 0.5% had breast lumps and were referred for FNAC.*

Newer findings: *VIA screening is a low-cost, effective method for early cervical cancer detection in rural areas, providing new data on cervical abnormality incidence and supporting regular screening as a preventive measure.*

Abbreviations: *VIA – Visual Inspection with Acetic Acid, CIN – Cervical Intraepithelial Neoplasia, RMCH – Rajshahi Medical College Hospital, FNAC – Fine Needle Aspiration Cytology, UHC – Upazila Health Complex.*

INTRODUCTION

Cervical cancer is the fourth most common cancer in women with an estimated 5,27,624 new cases and 2,65,653 deaths in 2012. Around 85% of these new cases and 86% of deaths occur in less developed countries. In Bangladesh, cervical cancer is the 2nd most common cancer in women, with age standardized rates (ASRs) for incidence and mortality much higher than global average statistics (Incidence rate: 19.3 versus 14.0/10000 women; mortality rates: 11.6 versus 6.8/100,000 women). Death from cervical cancer is prevented

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by early detection in precancerous stage by screening for CIN (Cervical Intraepithelial Neoplasia). Between 1988-1994 cytological screening by national call and recall system reached 85% coverage of target population had reduced the incidence and mortality from cervical cancer in England coverage of cervical cancer screening in developing countries of low, 19% on average compared to 63% in developed countries and reported as low as 1% in Bangladesh. Older and poor women who are at the highest risk of enveloping cervical cancer are least likely to be screened in Bangladesh visual inspection of cervix with acetic acid (VIA) is are accepted method of cervical cancer screening. (Population Prevalence of cervical intraepithelial neoplasia (CIP)) is an important indicator and help to judge the potential cervical cancer burden in the community.

Regular screening by VIA and treating pre-cancerous lesion ever by eligible visit screen and treat approach is recommended in resource poor setting to prevent cervical cancer [7,8]. In Bangladesh cervical cancer causes death of women when they are raising the family and cases are diagnosed late as they missed the opportunity for cure by Screening documentation of socio- demography and management relevant to women at risk of cervical cancer was done. The findings of this study may help complementing population based organized screening services for cervical cancer with expectation of reducing cervical cancer prevalence in Bangladesh.

METHODOLOGY

It was a cross section observational study done in OPD (Outpatient department) of UHC (Upazila health complex), Tanore Rajshahi for 5 days January 2020. Total 1200 Women were enrolled in this study. This study was conducted through research team of BSMMU (Bangabandhu Sheikh Mujib Medical University), Rajshahi Medical College Hospital (RMCH) and UHC, Tanore. There was one day training in OPD, UHC for selecting the participants from household one month before the camp. The target population were married women age (25-60) yrs & marital age > 10 years who were, apparently healthy and gave consent to participate in this study. Study population were selected according to inclusion and exclusive criteria then a research assistant counselled and explained about the study to each selected women and took a written informed consent. A presented questionnaire, was used as date collection. All the result were documented in standard questionnaire form. The socio demographic data was analyzed in frequencies and percentage.

RESULT

Table 1: Distribution of age of women

Age	Number	Precent
< 25 yrs	10	0.83%
(25-35) yrs	480	40.50%
> 35 yrs	704	58.67%

Table 1: More than 50% women attend in the screening programme age >35 yrs.

Table 2: Occupation of Women

Occupation	Number	Precent
Housewife	1140	95%
Govt Service	20	02%
NGO Service	40	03%

Table 3: Age during marriage

Occupation	Number	Precent
<17yrs	666	55.5%
18-25 yrs	510	42.5%
> 25 yrs	24	2%

More than 50% women with their marital age was < 17 yrs

Table 4: Parity of Women

Parity women	Number	Precent
Nulliparous or H/MR. abortion	56	4.67%
<2	754	62.83%
>3	390	32.5%

More than 60% women had <2 parity

Table 5: Age at first delivery

Age	Number	Precent
<20 yrs	720	60%
>20 yrs	480	40%

About 60% women had their first delivery before 20 yrs

Table 6: VIA test result

VIA result	Number	Precent
VIA (+)ve	18	1.5%
VIA (-)vd	1182	98.5%

VIA positive result was 18 women (1.5%)

Table 7: Age distribution of VIA positive cases (Total VIA positive case-18)

Age Group	No. of %
25 – 30	1 (5.53%)
30 – 35	3 (16.66%)
35 – 40	7 (38.88%)
40 – 45	4 (22.22%)
45 – 50	3 (16.66%)
50 – 55	2 (11.11%)
55 – 60	0 (00.00%)

Maximum no of VIA positive case in 35 – 40 of age group

Table 8: Co-relation VIA positive cases in different variables (Total VIA positive cases 18)

Parity	VIA Positive case and %
1	1 (55.55%)
2	3 (16.66%)
3	6 (33.33%)
4	8 (44.44%)

VIA positive case is more in increase parity

Table 9: Sex Partner and VIA Positive Cases

Sex Partner	VIA Positive case and %
1	3 (16.66%)
2	7 (38.88%)
3	8 (44.44%)

More no of sex partner in cases VIA positive case

Table 10: OCP (Oral Contraceptive Pill) and VIA Positive Cases

OCP (Oral Contraceptive pill)	VIA Positive case of %
No	7 (38.88%)
Yes	11 (61.11%)

DISCUSSION

Cervical cancer is the 4th most common cancer in women worldwide with an includence varies from 10 per one lac women in industrialized countries to 60 per one lac in some developing countries. Cervical cancer can develop at any age however women generally develop in between the ages (25-35) yrs The study reports the experiences of implementing VIA based cervical screening method in areas where medical facilities are limited. VIA is a simple and affordable credible screening test with acceptable sensitivity (50-88.6%) and specificity (66.7-89.7%) The result show that well trained health workers can effectively perform cervical screening cryotherapy and follow up ever with low resources. Under medical supervision in our study, the screen positive was 1.5%. Previous studies on VIA had the positively range from 6.6% to 27.4% [14,15].In this study, near 60% of cases aged more than 35 years which is comparable with other studies. [27,28] Those studies indicate CIN is more prevalent in sexually active women. [17,18]

WHO also emphasized on screening the women aged between (35-45) years most of the cases were housewives (95%) in hits study. In our study 62.83% women had less than two children. In this study, more than 50% women with their marital age was less than 17 year which is similar to other study. In this study VIA positive 18 women (1.5%) which in not similar to other study. Early age of marriage, and early first delivery is important demographic factor in development of carcinoma of cervix. In this study age of women first delivery was less than 20 years in 53.2%. Cases in our country common people have scare knowledge and information about cervical cancer and its risk factors. There are different risk factors for cervical cancer like early sexual exposure, age at first coitus multiple sexual partners, use of condom, cigarette smoking, HPV infection, use of oral contraceptives, low socio-economic status, high parity, uncircumcised male sex partner. Those women who had VIA positive 18 among than 13 women had done thermocoagulation at same setting and suspected women whose lesion is large are not covered by thermocoagulation and more chance of injury to surrounding structures. So referred them to RMCH for LEEP (Loop electrical excision procedure)

CONCLUSION

VIA test in a low cost easily available highly sensitive screening test for detection of precancerous cervical condition. This test decrease nationwide incidence of cervical cancer and data may help the health policy making to prevent cervical cancer at early stage and decrease morbidity and mortality.

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