



Original Article

Prevalence of Cervical Intra Epithelial Neoplasia (CIN) among the Sexually Active Married Women by Colposcopy at Rajshahi Division

Sahela Jesmin,¹ Monira Najnin,² Ashrafunnesa,³
Romana Afroz,⁴ Mousumi Sarkar,⁵ Mosammat Nargis Shamima⁶

Abstract

Objective: To determine the prevalence of cervical intra epithelial neoplasia (CIN) among sexually active married women in Rajshahi division of Bangladesh.

Study Design: It is a prospective cross sectional type descriptive study.

Place and Duration: This study is population based & carried out in 4 selected Upazilla from 4 different districts of Rajshahi Division. Total 1050 patient were enrolled in the study. Study period was 6 months from 1st December 2014 to 31st May 2015.

Subject and Method: All sexually active woman between age group 25 to 55 years in selected Upazilla. In UHC of preselected Upazilla who fulfilled the inclusion criteria enrolled in the study after taking the consent. Frequency & risk factors for CIN were analyzed after entering in predesigned proforma.

Result: During study period of 6 months among 1050 enrolled patients 90 patient were VIA positive and 91 patients were colposcopically abnormal and among these 33 patients were CIN positive & 58 patients had chronic cervicitis with or without squamous metaplasia.

Mean age of CIN positive were 36.75 years, 92.2% patient were housewife & 7.8% patient were service holder and in 64.6% patients education level up to XII class, in 55.5% patients husband was day labour from poor socioeconomic condition.

Conclusion: VIA and Colposcopy can differentiate a normal cervix from a precancerous cervix with reasonable accuracy. Till now, a good number of studies had been carried out in different countries of world & it is now well established that sensitivity of the test is very good. From the present study we can conclude that it will give very good information about the prevalence of CIN in our country and by follow up study this might help us in reducing the incidence of carcinoma cervix.

Key Words: Cervical intra epithelial neoplasia (CIN), cervical cancer, screening.

TAJ 2018; 31: No-2: 00-00

Introduction

Cervical cancer is second most common cancer in women in world and most common form of cancer in women in developing countries.¹ This situation is compounded by the fact that in under developed countries 75% of affected women present in advanced stage, which is in contrast to developed countries where 75% patient present in early stage

and a cure can be expected. It is estimated that up to 500,000 new cases of invasive cancer of the cervix occur per year worldwide, leading to 273000 deaths & 80% of these occur in under developed countries.² It is one of few malignancies in which premalignant condition exist and effective cytological screening method is available. Population based cervical cancer screening and treatment in early stage can reduce

¹ Professor & Head, Department of Obs & Gynae, Rajshahi Medical College, Rajshahi

² Junior Consultant (Obs & Gynae), Upazilla Health Complex, Gomostapur, Chapai Nawabgonj

³ Professor, Department of Obs & Gynae, BSMMU, Dhaka

⁴ Colposcopist, BSMMU, Dhaka

⁵ Indoor Medical Officer (Obs & Gynae), Rajshahi Medical College Hospital, Rajshahi

⁶ Assistant Professor, Department of Obs & Gynae, Rajshahi Medical College, Rajshahi

morbidity and mortality associated with cervical cancer.³ It is recommended that all sexually active women between ages 20-60 years should have cervical screening every three years as it detect premalignant condition.⁵ However discovery of Human papilloma virus (HPV) as a necessary factor for developing cervical cancer has led to introduction of HPV DNA testing and HPV vaccination which may improve the outcome of cervical cancer prevention.⁴

In Bangladesh incidence of cervical cancer is about 17,686 and around 10,364 women die from cervical cancer each year. In 2012, it was estimated that there were 528,000 cases of cervical cancer and 266,000 deaths.

Invasive squamous cell cervical cancer are usually preceded by a long phase of pre-invasive disease, collectively referred to as cervical intra epithelial neoplastic. CIN is not cancer and is usually curable. Most cases of CIN remain stable or eliminated by host's immune system without intervention. However, a small percentage of CIN cases progress to become cervical cancer usually, cervical squamous cell carcinoma (SCC), it left untreated. Majority of cervical cancers in United States occur in women who have never been screened within past five years, additional cases occur in women who do not receive appropriate follow up after an abnormal pap smear.⁶ In England and Wales incidence of cervical cancer fall by 42% between 1988 and 1997. This is directly related to cervical screening programme.⁷

Materials and methods

It was a cross sectional type of descriptive study, done in four Upazillas under four districts of Rajshahi division. Total 1050 women were recruited in our study over a period of six months from 1st December '14 to 31st May '15.

The selected Upazillas were:

1. Atghoria of Pabna.
2. Puthia of Rajshahi.
3. Lalpur of Natore.
4. Shibganj of Chapainawabganj.

Data were collected through a research team at UHC's by Rajshahi Medical College Hospital research team. The team was composed of (a) Principal investigator (b) Co-principal investigator (c) Research person-Colposcopists (d) Research

Assistant (e) Co-ordinator (f) Nurses-3 (g) Field staffs (Health Assisitent-4) (h) Ayas (2).

Procedure of data collection:

There was a preselected one day long training in each UHC for selecting the participants from households from each union of the selected Upazillas The target population were-

- Age (25 to 55yrs).
- Married women.
- Ambulant and apparently healthy.

Following inclusion and exclusion criteria a research assistant counseled and explained about the study to each selected women and took a written informed consent. All patients were placed in Lithotomy position and cervix was exposed by Cusco's vaginal speculum. Any evidence of infection, ectopy, polyps, leukoplakia, growth etc. was checked. Then VIA and Colposcopy were performed simultaneously. All women with colposcopically CIN had punch biopsy & specimens were sent for histopathology to BSMMU. Colposcopic findings were documented in standard questionnaires / Sheet.

Steps for CIN positive patient

Colposcopically diagnosed all CIN-I, CIN-II, CIN-III cases were called at Rajshahi Medical College Hospital in a specific selected day for local treatment (LEEP) and specimens were again sent for histopathology and all patients were advised for next follow-up according to schedule.

Results

A total 1050 cases were enrolled & evaluated regarding their socio demographic profile, colposcopic findings, histology and local treatment (LEEP) reports. The age range of the study patient was between 25 to 55 years. And mean age was 36.75 years. The maximum number (81.6%) the cases was in 30-44 years age group. Among 1050 cases about 92.2% were housewife and 7.8% were service holder. In about 64.6% cases, education level was up to class XII, illiterate: about 27%, graduate: 8.4%. 55.5% of their husbands were day laborer & 48.6% of them had education up to class XII. Their income was up to 15,000/- per month in 85.0% cases. Age of marriage was 15-19 years in 57.4% of the patient. Age of first delivery was 15-19 years in 51.2% & 20-24 years in 33.2% cases. Regarding parity- 45.4% cases had 2 children, about 36.3% cases had 3+ children.

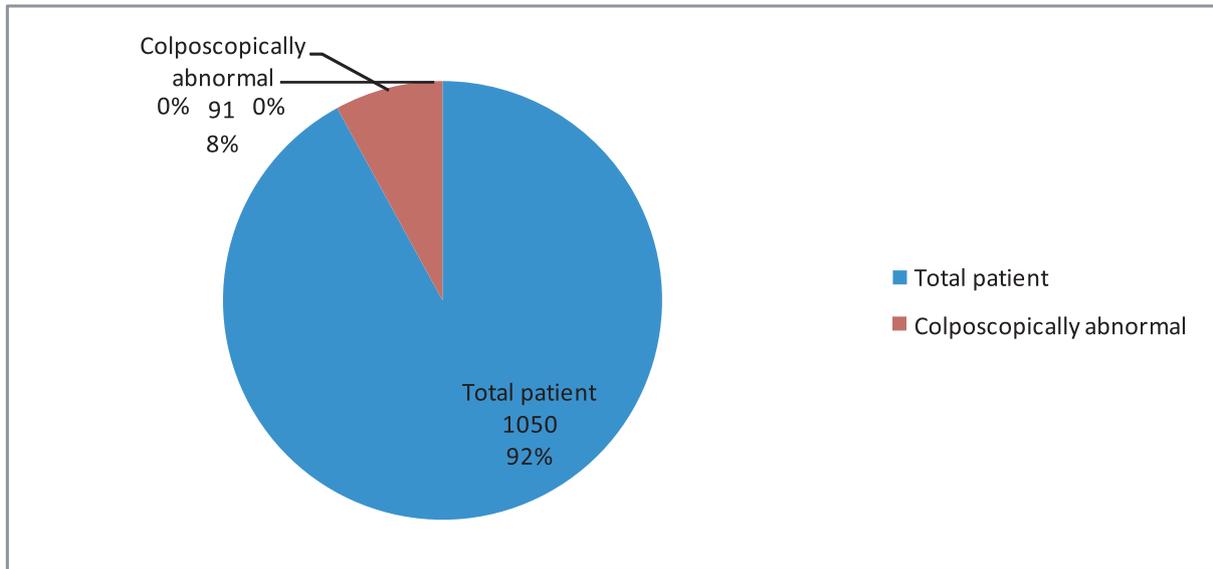


Figure-I shows:

Out of 1050 patients screened 960(91/4%) were VIA negative yielded normal colposcopic findings in 959 (91.3%). In 90 (8.6%) cases were VIA positive and colposcopic abnormalities in 91 (8.7%) cases. Out of 91 screened positive patient, histopathology report is shown in Figure-II.

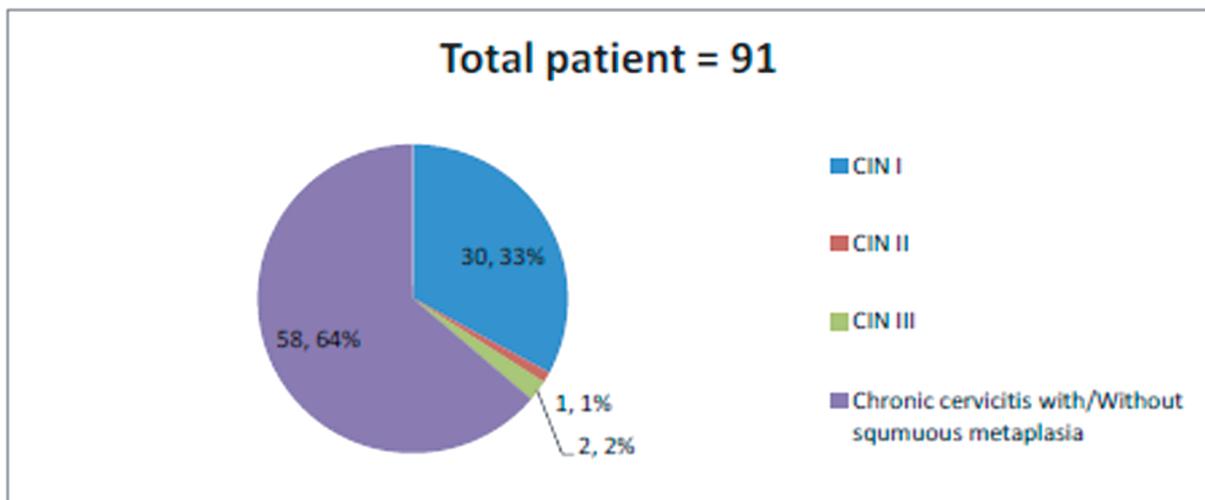


Figure-II shows:

CIN-I in 30 (2.9%), CIN-II in 1 patient (.1%), CIN-III in 2 patient (.2%), chronic cervicitis with / without squamous metaplasia in 58 patient (4.57%)

Out of this 33 patient 15 patients came for LEEP & we had done LEEP for those patients and tissue was sent for histopathology and report showed-

- * CIN-I in 4 patients
- * CIN-III in 1 patient
- * Chronic cervicitis in 10 patients

Discussion

Cervical cancer is the second most cancer in woman worldwide, with an incidence varies from 10 per 1 lac woman in industrialized countries to 60 per 1 lac in some developing countries.⁸ In USA about 250,000 to 1 Million woman develop CIN annually. CIN can develop at any age, however woman generally develop it between the ages of 25-35 years. But in our study vulnerable ages between 30-44 years & mean age is 36.75 years. Another study by Khustagi & Fernands showed prevalence of CIN was higher in woman over age 30 years.⁹ In our country common people have scarce knowledge & information about cervical cancer and its risk factors. Illiteracy is one of the important risk factor because it affects woman nutritional status, perineal hygiene, age of marriage, parity, contraceptive choice & health seeking behaviors. In our study 27% patient are illiterate. Age at first coitus is one of the important etiologic factors of cervical cancer. In our study age of marriage from 15-19 years in about 57.4% patient which is higher in comparison to 1 study in pakistan.¹⁰ Risk factors for cervical cancer are early sexual exposure, multiple sexual partner, not using condom, cigarette smoking, HPV infection, use of oral contraceptives, low socioeconomic status & high parity.¹¹ Male circumcision was thought to protect woman from the development of cervical cancer because only 5.5% of circumcised men harbor HPV in comparison with 19.6% uncircumcised men.¹² An international study collect specimen from 32 Hospital in 22 countries proved that HPV DNA was present in 99.7% of cervical cancer. HPV 16 was the predominant strain.

Conclusion

From this study we get information about the prevalence of CIN in Rajshahi Division. There were some limitations of our study: we could not collect endocervical curettage on scraping which is necessary for delectation of endocervical cancer &

we have no support for HPV DNA testing. To know the prevalence, effective screening program should be launched at national level and awareness must be created among health care providers & seekers regarding screening of cervical cancer.

References

1. Pierre L, Hirsh M. Cervical cancer. An evidence based test for MRCOG. Seed. London: Arnold. 2010:808-13.
2. Mahmood S, Premalignant and malignant diseases of cervix, Dewhuersts: 614.
3. Gichangi P, Estamble B, Bwayo J, Ogo K, Ojwang S, Opiyo A, et. al. Knowledge and practice about cervical cancer and pap smear testing among patients at Kenyatta national hospital Nairobi, Kenya. Int J gynecol cancer 2003; 13: 827-33.
4. Greenlee RT, Murray T, Bolden, et.al: cancer studies, 2000, Ca-a cancer journal for clinicians 2000; 50 (1); 7-88.
5. Sharma M, Ortendahl J, Van der Ham E, Sy S, Kim J. Cost effectiveness of human papilloma virus vaccination and cervical cancer screening in Thailand. BJOG 2012; 119: 166-176.
6. Hildesheim A, Hadjimichael O, Sehwartz PE, et al. Risk factor for Rapid onset cervical cancer. Am J Obstet Gynecol. 1999; 180 (3 pt 1): 571-7.
7. Quinn M, Babb P, Jones J, et al. Effect of screening on incidence of and mortality from cancer of cervix in England: evolution based on routinely collected statistics. BMJb 1999; 318: 904-8.
8. Juneja A, Sehgal A, Mitra AB, Pandey A. Survey on risk factors associated with cervical cancer. Indian J cancer. 2003 Jan-march; 40 (1): 15-20.
9. Saraiya UB. Cancer screening in Gynaecology, In Ratnamss, RaoKb & Arulkumarans, editor, obstreties and Gynaecology, orient Longman, India 2004. 2: 454-464.
10. Byrd TL, Chavez R, Wilson KM. Barriers and facilitators of cervical cancer screening among Hispanic women. Ethn Dis. 2007 Winter; 17(1); 129-34.
11. Ahmad N, Mehbood R. Cervical intra-epithelial neoplasia recent trend in diagnosis and management Pak journal Med Res Apr-Jun 2002;41(2):43-5.

- ^{12.} Khan MS, Raja FY, Ishfaq G. Tahir F, Subhan F, Kazi BM et al. Pap screening for pre-cancerous

conditions of cervical cancer. Pak J Med Res Jul-Sep 2005; 44(93): 111-3

All correspondence to-
Prof. Shahela Jesmin
Professor & Head
Department Obstetrics & Gynecology
Rajshahi Medical College Rajshahi, Bangladesh.
Email: shahelajessmin@gmail.com