Original Article

Performance of Colposcopy Clinic at Comilla Medical College Hospital in 2023

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Abstract:

Background: Cervical cancer was the fourth most common cancer diagnosed globally in 2020, and it was the fourth largest cause of death for women. Various screening procedures are available in Bangladesh, of which VIA is the most popular. VIA +ve cases are being referred to the colposcopy clinic, where evaluation and management is carried out. **Objective:** To provide an overview of the evaluation and management of VIA +ve cases of colposcopy clinics in Comilla Medical College Hospital. **Methods:** The study presents a retrospective analysis of records of the colposcopy clinic of Comilla Medical College Hospital (CoMCH) from January 2023 to December 2023. Patients besides Comilla Medical College Hospital, referred from different Upazila health complex, MCWC (Maternal and child welfare center) and, from other districts underwent direct colposcopic evaluation and management. The patient received different types of management such as thermal ablation, loop electrosurgical excision procedure (LEEP), and, biopsy for histopathological examination and they were kept for further follow-up. **Result:** In this study, a total of 3025 women underwent screening by VIA but among them, 115 (3.8%) women tested positive and referred to the colposcopy clinic in Comilla Medical College Hospital. In addition to these VIA positive women, a total of 1190 women were attending the colposcopy clinic who were referred from different UPZHC for colposcopic evaluation and management. Most of the patients about-70.92% were in the age group between 30-45 years and 74.53% patients were educated up to secondary level. Regarding colposcopic diagnosis 62.7% were normal, 25.21% were CIN I, 2.68% were CIN II, 0.84% were CIN III, and 4.03% were carcinoma cervix. Regarding management, about 4% of the patients were treated by LEEP, 12% patients by thermocuagulation, and biopsy for histopathology were taken from 47% of the patients. **Conclusion:** In developing countries like Bangladesh, adequate coverage of the total female population by cervical cytology is not possible at present. Colposcopy based "see and treat" protocol is well accepted for management of CIN in Bangladesh. It can reduce the number of visits to the clinic or failure to receive treatment and overall, can reduce the incidence of cervical carcinoma.

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Introduction:

In 2020, cervical cancer was the 4th most frequently diagnosed cancer and 4th leading cause of death amongst women with an estimated 604,000 new cases and 342,000 deaths worldwide.[1] Persistent infection of cervix with high risk human papillomavirus (HPV) has been established as a necessary cause for developing cervical cancer.[2] Cervical cancer preceded by a long period of recognizable cytological and histological change provides opportunity for early detection by screening procedures.[3] The risk factor for high prevalence of cervical cancer in Bangladesh is related to early marriage, early starting of sexual activities, multiparity, STDs, and low socioeconomic condition. Therefore, understandings of etiological factors are important for the successful prevention of the disease. Visual inspection of cervix after 3-5% acetic acid application is a simple and easy method of cervical cancer screening. On exposure to this solution, abnormal cells of the cervical epithelium temporarily turn white and reveal acetowhite epithelium on the transformation zone.[4]

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Highly effective primary (HPV vaccination) and secondary preventive measures make the cervical cancer completely preventable disease. Treatment of this cancer is expensive and requires radical operative procedures, prolong hospital stay and radiotherapy/ chemotherapy. Various screening procedures are available in Bangladesh, of which VIA is the most popular. VIA +ve cases are being referred to the colposcopy clinic where evaluation and management is carried out by thermocoagulation or LEEP. The objective of the study is to provide an overview of the evaluation and management of VIA+ve cases of colposcopy clinics in Comilla Medical College Hospital.

Methods:

The study presents a retrospective analysis of records of the colposcopy clinic of Comilla Medical College Hospital (CoMCH) from January 2023 to December 2023. Referred patients from different Upazilla health complex, MCWC (Maternal and child welfare center), and also from other districts underwent direct colposcopic evaluation and management. The patient received management such as thermal ablation, loop electrosurgical excision procedure (LEEP), and biopsy for histopathological examination and they were kept for further follow-up. Those patients having suspicion for invasive cancer, biopsy was taken and later on treated accordingly. VIA positive but colposcopy normal cases were advised for follow-up after one year by colposcopy. Data used in this study were collected from a colposcopy register which is supplied by the government.

Results:

In this study, a total of 3025 women underwent screening by VIA, among them 115 (3.8%) women tested positive and were referred to the colposcopy clinic in Comilla Medical College Hospital. In addition to this VIA positive women, a total of 1190 women were attending the colposcopy clinic who were referred from different UHC for colposcopic evaluation and management. Among the patients, most of them were in the age group between 30-45 years (70.92%) and were educated up to secondary level (74.53%). Regarding colposcopic diagnosis, 62.7% were normal, 25.21% were CIN-I, 2.68% were CIN-II, 0.84% were CIN-III, and 4.03% were carcinoma cervix. Regarding management, 4% of the patients were treated by LEEP, 12% patients by thermocuagulation and biopsy were taken from cervix about 47% of the patients for histopathology. Histopathology shown 0.6% were normal, 9.3% were CIN- I, 3.03% were CIN-II, 0.6% were CIN- III, 53.45% were ch. cervicites and 11.41 % were carcinoma cervix.

Table-I: Demography of the patient in colposcopy clinic (1190)

Characteristic	Noof patients	Percentage(%)
Age(Years)		
<30	149	12.52
30-45	844	70.92
>45	197	16.55
Education		
None	76	6.38
Primary & secondary	887	74.53
Higher secondary & above	227	19.07
Monthly family income		
<10,000 (lower middle class	111	9.32
10,000-20,000 (middle class)	755	63.44
>20,000 (higher middle class)	324	27.22

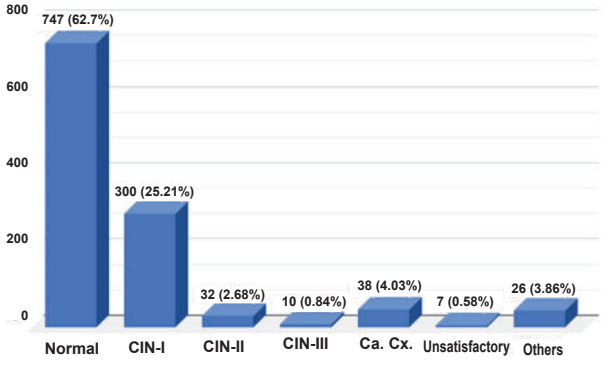

Fig-1: Colposcopic diagnosis of the patient

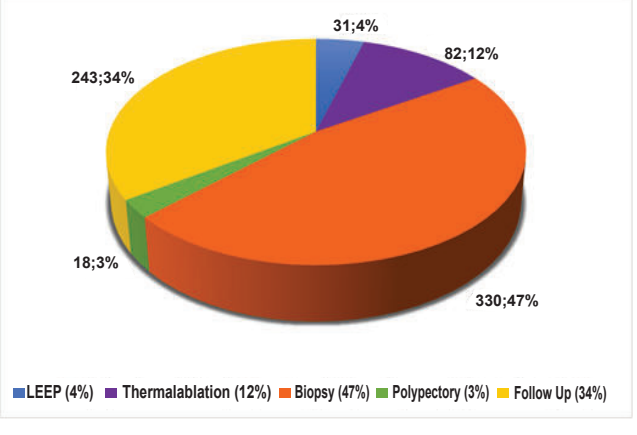

Fig-2: Management of the patient diagnosed as CIN (704)

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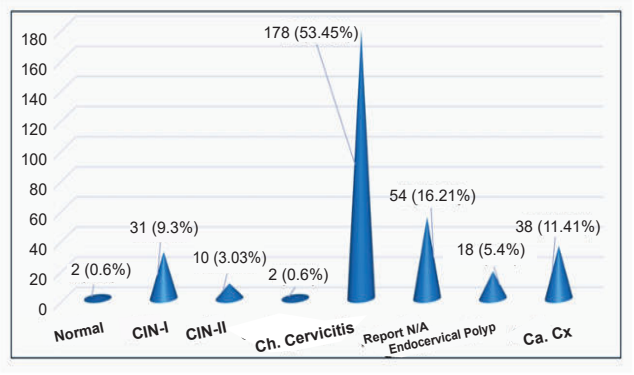

Fig-3: Co-relation between abnormal colposcopy findings and histopathology

Discussion:

This retrospective study was conducted among VIA +ve women of different age group. Out of 1190 women, 70.92% were in age group between 30-45 years. World health organization suggests the priority age group 35-45 years for the screening of CIN[5]. But in SB Kasem's study in Sir. Salimullah Medical College and Mitford Hospital, Bangladesh, 43.79% were in the age group of 30-39 years[6]. In this study, 74. 53% patients were educated up to secondary level and 63.44% of the responders monthly family income is between 10,000-20,000 taka. In SB Kasem's study, it was 68.59%, which is more or less consistent with this study.[6]

In our study, we found 25.21% women were CIN-I, 2.68% women were CIN-II, 0.84% women were CIN-III, and 4.03% women were diagnosed as carcinoma cervix. In CoMCH Centre VIA +ve was in 3.8% cases, but in BSMMU VIA +ve was 4.8%, which is consistent with our center reports. However, in Faridpur center of Bangladesh, VIA +ve was 26.1%, which is not consistent with our report.[4,7] Moreover, CIN in VIA +ve cases was 28.73% in our center but in another studies, Faridpur by Zeba. D. it was 26.1% & 22.1% in Jesmin ZF and 28% by Jesmin S which is more or less consistent with our study.[7,8,9] Though VIA positive, colposcopy is not a method to diagnosis of invasive cancer, the opportunistic diagnosis of invasive cancer in our center was 4.03%, which was much higher than Zeba D. (2.6%), Jasmine ZF. (4%) & Jesmin S. (1%).[7,8,9] This indicates that many of the patients having Carcinoma Cervix are still not diagnosed. We provided treatment by LEEP (4%), thermal coagulation (12%) and cervical punch biopsy (47%) which was taken from the majority of the patients. Regarding histopathology, 9.3% were CIN-I, 3.03% were CIN-II, 0.6% were CIN-III and 11.41% were carcinoma cervix. In SB Kasem's study, biopsy showed normal findings in 3.17% cases, inflammation in 36.51% cases, CIN-I in 30.16% cases, CIN-II in 1.59% cases, no CIN-III cases were found, and a large number of cases (53.03%) diagnosed as chronic cervicitis. However, we found chronic cervicitis in 53.9%, though VIA +ve, the possible reason for finding chronic cervicitis may be due to the punch biopsy missing the site of lesion. Evidence of CIN and an invasive leisons in colposcopy directed cervical biopsy among the VIA +ve patients strongly suggested the need of VIA as an essential screening test. High incidence of unsuspected acetowhite epithelium which might be due to inflammation, immature metaplasia and latent HPV infection. The limitation of colposcopy is its dependence on observer variability and relatively weaker performance in differentiating normal cervix from low grade leisons[10].

Conclusion:

In developing countries like Bangladesh, adequate coverage of the total female population by cervical cytology is not possible at present. In such a situation, VIA is suitable as primary screening and VIA positive by colposcopy. Colposcopy based "see and treat" protocol is well accepted for management of CIN in Bangladesh. It can reduce the number of visits to the clinic and failure to receive treatment and overall can reduce the incidence of cervical carcinoma.

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