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NONCOMMUNICABLE DISEASE (NCD)PREVENTION BASED CERVICAL CANCER SCREENING PROGRAMME IN TERTIARY CARE CENTRE- HEALTH AWARENESS CAMPAIGN INDUCED INCREASE IN ATTENDANCE - COMPARISON BEFORE AND AFTER THE IMPLEMENTATION OF PROGRAMME

Pathology

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ABSTRACT

Aim; this study was to review available data concerning the outcomes after the implementation of screening programme and to possible future plotting of disease pattern and cancer prevention may depend on organizational changes including enhancing reporting, monitoring and quality control. Noncommunicable disease (NCD)prevention Based Cervical Cancer Screening Programme was developed and implemented1,2. **Materials and Methods:** Retrospective and prospective study with uterine Cervix biopsy Data collected from NCD clinic, department of gynaecology, and pathology at Government Mohan Kumaramangalam Medical College Hospital, Salem, Tamilnadu, India.over a period of 5 years from January 2011 to December 2015. Result; cervical cancer screening through simple test like VIA/VILI is affordable, feasible, and an accurate tool for implementation in all health-care settings8.Conclusion; This study highlights the success of public health awareness advertisement and implementation of additional visual screening tool in early detection cervical lesions.

KEYWORDS

NCD programme, Cervical cancer, screening,

INTRODUCTION

Cancer is one of the leading causes of adult deaths worldwide. cervical cancer is a public health problem in developing countries like India, so much so that India alone accounts for one-quarter of the worldwide burden of cervical cancers.[1,2,5]. It is the one of the leading cause of cancer mortality, accounting for 17% of all cancer deaths among women aged between 30 and 69 years[5]. Cervical cancer related mortality in women is a major burden in developing countries. This study was conducted to assess the burden of cervical cancer in tertiary healthcare centre Government Mohan Kumaramangalam Medical College Hospital, Salem, Tamilnadu, India. and review the cervix biopsy data available by cervical cancer screening test so as to provide evidence-based recommendations for application of most practically suited screening test to be used in all level of health care provider.

Screening for cancer is known to reduce mortality by early detection and treatment. However, there are two prerequisites for screening to reduce the rate of death from cancer. The objective is to create awareness for screening to advance the time of diagnosis of cervix cancer and treatment of the precancerous condition to prevent cancer development .[3,4] cervix can be subjected to screening for early diagnosis Therefore, this study was carried out to understand and present burden of cervical cancer in area covered by tertiary care centre like GMKMC hospital, Salem as well as to appraise the various cervical cancer screening methods and studies conducted for evaluating screening test for the detection of cervical carcinoma.

In developing countries because of lack of necessary infrastructure and quality control, high-quality cytology screening may not be feasible for wide-scale implementation. Hence, cervical cancer screening program based on visual screening test such as VIA/VILI followed by cervix biopsy in positive test is adopted as an integral part of primary health-care setup in resource-poor countries like India[4,5,10,11].

Materials and Methods:

Retrospective and prospective study with uterine Cervix biopsy Data collected from NCD(non communicable disease) clinic, department of gynaecology, and pathology at Government Mohan Kumaramangalam Medical College Hospital, Salem, Tamilnadu, India.over a period of 5 years from January 2011 to December 2015

RESULT

Cervix is amenable to screening by a number of methods which include visual inspection with acetic acid (VIA), magnified VIA (VIAM) visual inspection with Lugol's iodine (VILI), the Papanicolaou test, and HPV DNA testing[10,11]. Colposcopy guided biopsy taken from VIA/VILI positive portion of cervix.

Table: Year wise data of disease pattern in cervix biopsy

Year	Non neoplastic lesion	Cervical intra epithelial neoplasia(CIN)			Carinoma	Total
		CIN-I	CIN-II	CIN-III		
2011	158	16	12	07	57	252
2012	197	10	05	07	77	294
2013	627	39	14	21	92	793
2014	668	81	56	36	157	1001
2015	330	68	56	54	175	675
Total	1980	214	143	125	558	3015

DISCUSSION

In India, an organized mass-screening program for early detection of cervical cancer is done in very selective health camps only. cervical cancer incidence rates are an underestimate for India possibly due to underdiagnosis of cervical cancer cases in rural areas[12]. In developed countries, conventional cytology screening programs have shown a marked decline in the incidence of cervical cancer.[7] However, its successful implementation requires a variety of requirements to be fulfilled, which are not feasible in many low-resource settings where a high risk of cervical cancer is experienced. For instance, cytology screening requires a laboratory infrastructure, microscopes, several resource personnel (smear collectors, cytotechnicians, and pathologists), consumables (slides, fixative, Pap stain containing five dyes, and three solutions), and several steps with inbuilt quality assurance procedures. cytology must be repeated at frequent 3–5-year intervals to ensure satisfactory sensitivity and optimum detection of cervical cancer precursor lesions and repeat visits are necessary after a positive cytology for diagnosis and treatment, which may lead to drop outs[6].

Several years of cytology screening in low- and middle-income countries have not led to significant reductions in cervical cancer in these countries, possibly due to the difficulties in offering high-quality cytology, programmatic deficiencies in follow-up and treatment of screen-positive women, and also due to the considerable financial, technical, and logistic inputs necessary for effective cytology programme. Hence, these challenges have prompted the search for programs based on alternative cervical screening tests, which are implementable in resource-poor settings. VIA is one of the alternative methods for cervical cancer screening that has been widely investigated. In our review of Indian studies, the sensitivity of VIA has been found to be better than cytology, but its specificity is lower [9,10,11]. The biggest advantage of visual tests is that it can be implemented through primary health-care workers, it does not require a laboratory infrastructure, and the results are obtained immediately following testing, allowing diagnosis and treatment to be instituted during the same visit. It has been well established that cervical neoplasia is caused by persistent infection with certain oncogenic types of HPV. Indian studies of testing for HPV DNA indicate higher sensitivity and comparable specificity as compared to visual inspection and cytology. However, the requirement of sophisticated laboratory infrastructure and high cost make it impracticable to be implementable in resource-poor, low-income countries. Studies have shown that the probability for CIN I, CIN II, and CIN III to develop

into cervical cancer are15%, 30%, and 45%, respectively, and occasionally, CIN I and CIN II may directly develop into cervical invasive carcinoma without turning into CIN III first[7]. In general, it takes approximately 10 to 20 years of precancerous lesions before cervical cancer develops

The studies conducted in India provide sufficient evidence that cervical cancer screening through simple test like VIA/VILI is affordable, feasible, and an accurate tool for implementation in all health-care settings. In addition, VIA/VILI also provides an opportunity to adopt "see and treat" approach, which is very useful in resource-poor countries where follow-up is poor[8]. These tests can also be easily taught to all level of health workers, who can help in conducting the screening program in remote areas. for any cervical screening program to be successful in addition to the use of a reliable and accurate screening test, high rates of coverage and the ability to effectively provide treatment to test positive women are very important. To create awareness among people government launched a series of advertisements along with the implementation of NCD programme statewide. The advertisements ranges from posters, audio ads in radio, audiovisuals in television and in cinema theatre. They are very effective, easy to understand and simple to follow. During the initial period of programme implementation there was sudden increase in the number of patient attending gynaecology department and number of cervix biopsy increased substantially. A well placed NCD clinic at the health institute with adequate dedicated staff and greater involvement of all NCD trained staffs at various departments was the key to the success of the programme. Previously cervix biopsy done on symptom based and with any gross findings detected in colposcopy examination. Initially Pap smears were taken and Biopsy usually taken based on the Pap smear report. As programme guideline all the female in reproductive age group and post menopausal state attending hospital weather as a patient or accompanying person can undergo cervix screening either as referral by health personal or voluntarily by herself at NCD clinic. the data of cervix biopsy with disease pattern during a period of four years from January 2011 to December 2015 with the highlight of sudden and sustained increase in number of cervix biopsy corresponding to the the launch NCD programme around May 2013.

CONCLUSION.

Periodic research and feedback in the development and improvement of health services and generation of health awareness through sustained advertisements to public and community involvement are keys to the initiative in reducing the burden of cervical cancer. This study highlights the success of public health awareness advertisement and implementation of additional visual screening tool in early detection of precancerous lesion of cervix and cervical cancer in all level of health care provider and also in resource-poor setting and thus, provides a unique opportunity for developing countries to integrate screening of cervical neoplasia in primary health-care settings.

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