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MISSING CASES OF CANCER CERVIX IN NEWLY STARTED OUT PATIENT DEPARTMENT OF RADIOTHERAPY, CIMS, BILASPUR (C. G.)

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ABSTRACT: BACKGROUND: Cancer of the cervix is the second most common cancer among women's worldwide. In India also, cancer of cervix is second most common cancer among women's and number one killer. Estimated incidence rate of 22/lac population.^[1] Cancer cervix is difficult to cure once symptoms developed. Prognosis is strongly dependent upon the stage of cancer at the time of detection and treatment. In our institute CIMS, Bilaspur (C. G.) newly form cancer unit start providing services from August 2013. In our Hospital registry a cross-sectional base line data were collected, it was eye opener that proportion of cancer of cervix registry are less as compared nationwide HBCR & PBCR programme. **OBJECTIVE:** 1. To find out the reason for low registration of cancer cervix cases in OPD of cancer Unit. 2. To developed/suggest appropriated screening program. **MATERIAL AND METHODS:** Retrospective study was carried out to collect all information from- Year 2012 to June 2015, from medical records & Registers of department of pathology, department of Obstratric & Gynaecology and Medical Record Department, information collected regarding cancer cervix patient in semi structured format and analysed by SPSS software to inquire about cancer of cervix patient. **STATISTICAL ANALYSIS:** Using SPSS software 11.5 version. Statistic were reported in form of frequency and percentages. **RESULT:** In this present study out of total diagnosed cervical cancer cases in our institute only 61.11% cases reach up to radiotherapy department for registration and 38.88% cases are lost during referral and follow-up. Yield of cancer cervix screening camp was only 5.75% and OPD based screening 22.89% with cervical smear cytology, both figure are quit low as cytology is estimated to have a mean sensitivity of 58% and specificity of 69%^[2] both sampling and detection error probably contribute to low to moderate sensitivity of cytology. **CONCLUSION:** Coordination between different departments is lacking and patients fail to register in cancer unit, they lost during referral and follow-up. Overall cervical cancer screening rate is very low with few numbers of Pap smear and cervical biopsy sample.

KEYWORDS: Pap smear, cervical biopsy, VIAM (Visual inspection with 5% acetic acid magnification), VILI (Visual inspection post application of Lugol's iodine) and cancer registry.

INTRODUCTION: There are wide variation in the distribution of cancer throughout the world. In the South-East Asia Region of WHO, the great majority are cancer of the oral cavity and uterine cervix. HBCR* & PBCR** in India, data clearly indicates that the two organ sites most commonly involved are (1) the uterine cervix in women, and (2) the oropharynx in both sexes. Cancer registration is a sine qua non for any cancer control programme. It provides a base for assessing the magnitude of the problem and for planning the necessary services.

Cancer screening is the main weapon for early detection of cancer at a pre-invasive (in situ) or pre-malignant stage is the best possible protection against cancer for the individual and the community. There is no point in detecting cancer at any early stage unless facilities for treatment and after care are available. However, screening for cancer cervix using pap smear requires excessive

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resources in term of laboratories, equipment's and trained personnel's, but there are an alternative screening method that can be more cost effective. Visual inspection based screening test such as VIAM (visual inspection with 5% acetic acid magnification and VILI (visual inspection post application of Lugol's iodine). Sensitivity of VIA tends to be similar to cytology based screening.^[1]

HPV DNA testing is now included in screening as an adjunct to the pap test for woman 30 Year and older. This new screening protocol takes advantages of high sensitivity and negative predictive value of HPV DNA testing and the high specificity of cervical cytology multiple large scale study from several countries. Evaluating the role of HPV testing in primary screening have shown that the combination of negative pap test and negative HPV DNA test indicate the absence of CIN 3 or cancer with almost 100% certainty.^[3]

MATERIAL & METHODS: Information regarding cervical cancer cases are recorded in semi structured format from Medical records/ registered of Department of Radiotherapy, Department of Obstetric and Gynaecology, Medical Record Department and Department of pathology from JANUARY 2012 to JUNE 2015 to find out the average number of cases screen and registered in different department, and compared the data of January 2014 to June 2015 (Cancer unit started providing services) between different department e.g. OBG and Pathology, to cancer registry of radiotherapy department and try to find out the reason of missing cervical cancer cases during referral system, during screening or during diagnosis of patient. Register and records of Gynaecology patient were check to inquire about total number of Pap smear collected, total number of cervical biopsy performed and cervical cancer patient registered in department, those who referred from outside center to OBG department for treatment. Record and registers of department of pathology were check regarding cervical biopsy reports and histopathological reports of pap smear, total number of sample examine and positive reports. Medical Record Department were also checked for registry of cancer cervix patient. All the data were cross check with record of Radiotherapy department and try to establish the reason of low number of cancer cervix registration in our HBCR (Hospital based cancer registry). Data was analysed by using SPSS software. Ethical clearance obtained from ethical committee of CIMS, Bilaspur (C. G.).

RESULT & DISCUSSION: As shown in table:-1 data from 2012 to 2015 were collected and surprisingly, total number of sample examine per year are few in number it was easily count on finger. During January 2012 to June 2015 total 48 pap smear sample were collected and out of that 8(16.66%) are positive, in same period total 174 cervical biopsy sample were collected (*Including camp based screening biopsy sample) and 21(12.06%) comes with positive result.

During 2014 cancer cervix screening camp was organized under pilot project, supported by government of C.G., in collaboration with NGO based hospital and total 139* married women age above 21 years to 70 years were examine and screen for cancer cervix and biopsy sample of cervix were collected and send to our institute, out of 139* sample's 8*(5.75%) were positive for Cancer cervix.. Study carried out by another observer Subhra Aggarwal.^[4] in year 2006 at Raipur (C.G.), observed that with visual inspection methods out of 1441 sample 132(9.16%) cases with positive results, out of that 132 cases 14(10.60%) are confirmed by diagnostic cervical biopsy. Rengaswamy Sankaranarayanan et.al.^[5] also mentioned that cytology based screening programmes for cervical cancer have been introduced in some developing countries, but generally have achieved very limited success.

Number of studies carried out by several researcher in recent year to find out the cost effective methods of cervical cancer screening for developing countries. Wright TC et.al. ^[6] Mentioned that two

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of the most recent methods have been visual inspection with acetic acid and molecular testing for high-risk type of human papilloma virus deoxyribonucleic acid. Shows great deal of promise in cross sectional studies however, in randomized control trial, it has been shown to be significantly less effective. Another researcher Arbyn M et.al.^[7] was observed that liquid based cervical cytology is neither more sensitive nor more specific for detection of high-grade cervical intraepithelial neoplasia compared with the conventional pap test.

Department of Radiotherapy started providing services from end of 2013 therefor data of radiotherapy department were collected from January 2014 to June 2015, during the same period Department of OBG collected 10 cervical biopsy sample for examination and out of that 4(42.85%) are positive, and out of 28 pap smear slides 6(21.42%) were positive in OPD based screening and 8* positive cases screen out by camp based screening programme, so total 18(100%) positive cases were reported between January 2014 to till June 2015 that is too less for any tertiary care hospital, even for newly started department.. Out of total 18 positive sample's, only 11(61.11%) cases reach up to radiotherapy department and 7 (38.88%) cases are lost and failed to registered in Radiotherapy department. As compared to pt. JLN Medical College, Regional cancer institute at Raipur (another government cancer centre in our state) in hospital based cancer registry, 15% to 18% of cancer cervix cases reported in any given point of time.^[4] In our institute it was 8.33% of total cancer registry.

As shown in table: 1&2 number of cases registered in different department are few in number and varies, even those few cases not reach up to cancer OPD, cervical cancer patients may lost during referral, registration or follow-up. Reason for low registration may be patient not aware about newly started cancer unit and not a single case referred in from peripheral government rural health centres (PHC & CHC) only 2 cases referred in from NGO based hospital. Eric J. Suba.⁽⁸⁾ mentioned that the screening test for cervical cancer are appropriately characterized as complimentary rather than competitive referral rate for colposcopy are unsustainable unlike single visit cytology screening required the administration of treatment before the possibility of invasive carcinoma has been excluded, which necessities considerable psychological morbidity.

According to table:-3 cancer of cervix cases contribute (8.33%) of total cancer registration, it ranked 2nd commonest cancer among female and 5th commonest cancer among all cancer types (C00-D48) in our hospital registry. but overall proportion as compared to other hospital based cancer registry is very less. As compared to other hospital based cancer registry in our state at Raipur, cancer cervix cases ranging from 15% to 28%.^[9] with 2nd leading cancer among female.

It was observed that in different hospital based cancer registry in India it also ranked 1st to 3rd but proportion of cases are more. In other HBCR(Hospital based cancer registry).^[10] commonest cancer among female are, in Mumbai-Breast (26%), Cancer cervix (19%) and Ovary (6%), in Bangalore-Cancer Cervix (33%), Breast (13%) and Mouth (11%), in Chennai commonest cancer are as same as Bangalore, in Dibrugarh-Cancer Cervix (15%), Oesophagus (13%) and Breast (12%), Ovary (8%) and Mouth (7%).

Different PBCR (Population based cancer registry).^[11] also observed that Cancer cervix is first three common cancer among Indian female, in Bangalore-(2008-09) Breast(27.3%), cervix uteri (14.0%), Ovary (5.7%), Barshi (rural)-(2009-2010) cervix uteri (29.8%), Breast (18.5%) Ovary (6.0%), Bhopal (2009-10) Brest (26.7%), cervix uteri (16.0%), Ovary (8.0%).

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Year	Pap Smear Examine	Positive Result	Cervical Biopsy	Positive Result	Total Positive Cases (Ca Cervix)
2012	7	1	15	6	7
2013	13	1	10	3	4
2014	10	2	139*+7**	8*+3**	13
2015 (till June)	18	4	3	1	5
Total	48	8	174	21	29

Table 1: Pap smear and cervical biopsy sample Examine in pathology department.

*Cases from cervical cancer screening program organised by NGO Hospital, Ganiyari, Bilaspur.

**Screening by Department of Obstetric and Gynaecology

Year	Department of OBG	Department of Pathology	Department of Radiotherapy	Medical Record Department
2014	05	13	07	07
2015 (till June)	02	05	04	04

Table 2: Data of cancer cervix (C 53) registration in different departments of CIMS

Type of Cancer	Among Male No.	(%)	Among Female No.	(%)	Total Cancer (C00-D48) N=132(100%)	(%)
1.oral cancer(C03-06)	15	11.36	09	6.81	24	18.18
2.Breast cancer(C50)	00	00	23	17.42	23	17.42
3.Colon and rectum (C18-20)	09	6.81	05	3.78	14	10.60
4.Leukemia(C92-94)	06	4.54	07	5.30	13	9.84
5.Cancer cervix (C53)	00	00	11	8.33	11	8.33
6.Others Cancers(C00-D48)	24	18.18	23	17.42	47	35.6

Table 3: First five commonest cancer registered in cancer unit

CONCLUSION: 4 year's Pap smear and cervical biopsy sample collection rate is very less total 83 sample were collected in OPD based screening and further case detection rate is also low 21(25.30%), and in camp based approached it was only 8(5.75%) out of 139 cases. Yield of cancer cervix screening improved by combining visual inspection method with cervical biopsy. Although cervical biopsy and pap smear are time consuming procedures so it's not feasible to carried out at busy OBG outpatient department of government setting in routine basis with limited infrastructure and manpower, only suspected cases with positive history are screen for cervical cancer. It was also observed that coordinated activities between different departments are lacking that's need to improvised and increased overall cancer registry. Below district level cancer screening and referral activates are almost neglected.

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RECCOMANDATION:

1. There is need to be developed appropriate referral system/coordinated activity between different departments e.g. OBG, pathology and Radiotherapy for up dated cancer registry system.
2. Community Oncology activity has been developed with department of community medicine to organized cancer detection camp's and also organized awareness camps particularly for rural community.
3. There is need to be communicate and informed the peripheral rural health centres and other private practitioner's about the newly started cancer detection and treatment facilities in state. VIA method can be used in rural health centres for cancer screening.
4. Frequently repeated Screening test on regular basis(Every year to every 3rd year) to wide age range that are used in developed countries is not possible with limited resources, but certain define high risk population in define geographical area must be screened with high quality services to check the trend of morbidity.

REFERENCES:

1. Park K. park's text book of preventive and social medicine: 23rd Edition, Bhanot publication, Jabalpur India 2015.P.381-91.
2. Regaswamy Sankar Narayan, Atul Madhukar Budukh, Rajamanikam Rajkumar, [www.who.int/bulletin/archives/79\(10\)954](http://www.who.int/bulletin/archives/79(10)954).
3. Jin.X W. cervical cancer screening and prevention clevenland clinic centre for continuing Education,2010 August . Available from www.clevelandclinicmed.com/.com/medicalpubs/diseasemanagment/woman's-health/cervical-cancer.
4. Aggarwal S. Screening for carcinoma cervix, visual inspection of cervix with acitic acid application in women above 30 years of age residing in urban slum of Raipur City(MD Thesis). Pt JNM Medical college, Ravishankar University Raipur India2002.
5. Regaswamy Sankar Narayan et.al. Bulletin of the World Health Organization organ vol.79 n.10 Jeneva Jan.2001.
6. Wright TC et.al. Interim guidance for the use of human papilloma virus DNA testing as an adjunct to cervical cytology for screen. Obstetric gynecol 2004/103: 304-309.
7. Arbyn Met. European guideline for quality assurance in cervical cancer screening. Ann Oncol.2010; 21: 448-58.
8. Suba E J, Frable WJ, Roab SS., Cost effectiveness of cervical-cancer screening in developing countries ,N Eng J Med.2006,354:1535-1536.DOI:10.1056/NEJM,053454.
9. link <http://www.ptjnmcraipur.in> (pt. Jawahar Lal Nehru Memorial Medical College Raipur: Department of Radiotherapy/Regional center).
10. ICMR. Two year report of HBCR 1999-2000 (Mumbai, Bangalore, Channai, Triruantapuram and Dibrughar).
11. Government of India. National health profile 2013: Jan-Dec: central bureau of health intelligence, 2013: page 98-106.

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