

A preliminary study on perception of Cervical cancer

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Abstract- An attempt has been made to study the correlates of knowledge of cervical cancer in a working women group. The survey undertaken is a part of Knowledge, Attitude and Practice study prior to initiation of cytological screening. Subjects for the present analysis consisted of a group of women who had never reported previous gynecological problems related to cervical cancer. The study brought out that younger women had better awareness and knowledge about cervical cancer and related information. Literacy status for education and exposure to family planning was influential in creating awareness about cervical cancer. Lastly, the earlier episodes of gynecological problems, and treatment seeking behavior lead to higher awareness (efforts may be made to innovate ways to reach older and illiterate women at risk of cervical cancer for better awareness in the group).

Index Terms- Cervical cancer, awareness, education, screening program, Pap smear test, smoking, social stigma, sexual intercourse.

I. INTRODUCTION

Cervical cancer is the term for a [malignant neoplasm](#) arising from cells originating in the [cervix uteri](#). One of the most common symptoms of cervical [cancer](#) is abnormal [vaginal bleeding](#), but in some cases there may be no obvious symptoms until the cancer has progressed to an advanced [stage](#). Treatment usually consists of [surgery](#) (including *local excision*) in early stages, and [chemotherapy](#) and/or [radiotherapy](#) in more advanced stages of the disease, CDC, 2010; Castellsague et al, 2002; Ault et al, 2007; Solomon et al, 2002.

The cervix is the lower part of the uterus (womb). It is sometimes called the uterine cervix. The body of the uterus (the upperparts) is where a body grows. The cervix connects the body of the uterus to the vagina (birth canal). The part of the cervix closest to the body of the uterus is called the endo-cervix. The part next to the vagina is exo-cervix. The two main types of cells covering the cervix are squamous cells (on the endo-cervix). The place where these two cell types meet is called the transformation zone. Most cervical cancers start in the transformation zone, Jhingram et al, 2003; Appleby et al, 2007; Lu et al, 2009; Ghosh et al 2008.

Most cervical cancers begin in the cells lining the cervix. These cells do not suddenly change into cancer. Instead, the normal cells of the cervix first gradually develop pre-cancerous changes that turn into cancer. Doctors use several terms to describe these pre-cancerous changes that turn into cancer. Doctors use several terms to describe these pre-cancerous changes, including Cervical Intraepithelial Lesion (CIL) and

dysplasia. These changes can be detected by the PAP (named after George N. Papanicolaou, the inventor of the test) test and treated to prevent the development of cancer, Hatch et al, 2001; Gray et al, 2010; Gadducci et al, 2011.

There is main type of cervical cancers: squamous cell carcinoma and adenocarcinoma. About 80%-90% of cervical cancers are squamous cell carcinomas. These cancers are from the squamous cells that cover the surface of the exocervix. Under the microscope this type of cancer is made up of cells that are like squamous cells. Squamous cell carcinomas most often begin where the exocervix joins the endocervix.

Most of the other cervical cancers are adenocarcinomas. Cervical adenocarcinomas seem to have become more common in the past 20-30 years.

[Human papillomavirus](#) (HPV) infection appears to be a necessary factor in the development of almost all cases (90+ %) of cervical cancer. It is the greatest risk factor for cervical cancer followed by smoking. Other risk factors for cervical cancer include: [chlamydia infection](#), stress and stress-related disorders, dietary factors, [hormonal contraception](#), multiple [pregnancies](#), exposure to the hormonal drug [diethylstilbestrol](#), and [family history](#) of cervical cancer. Early age at first intercourse and first pregnancy are also considered risk factors, magnified by early use of oral contraceptives. So, it is a great problem to the society. In India and especially in our society this disease now is showing the red eye, Jhingran et al, 2014; Nielson et al, 2009; Tobian et al, 2009; Walboomers et al, 1999; Winer et al, 2003. So Cervical cancer is now one of the great threats in our society and only the consciousness can prevent such kind of fatal disease. A number of scholars has tried to work on the cervical cancer and its societal impact, Trevor Howell Ward, and Bedford are the best example who studied the causes, symptoms, stages and treatments of cervical cancer. Julie Easley has focused her studies on Young Women's Health Awareness among High School and University Students of New Brunswick. A number of researchers aim to understand the importance of HPV screening for cervical cancer in rural India.

II. OBJECTIVE OF THE PRESENT STUDY

The main objective of the present study is to find out the awareness and consciousness of Cervical cancer among the working women of Kolkata.

III. MATERIALS AND METHODS

The present study has been carried out among the 300 apparently healthy working women of Kolkata. Only the women have been considered for this cross-sectional study aged between

20 and 30 years living in the metropolitan area of Kolkata. Data for the present study has been collected by using specially prepared and pre-tested schedule. Short term interview has been taken on the cervical cancer knowledge and awareness among the participants of the study. Then data has been checked and computed accordingly. Analysis has been done by using the office, 2007 (excel) and SPSS (Version 10.0).

IV. RESULT

Among the participants 88% of them reported that they "had ever heard about cervical cancer ", but only 52.27% of them, knew that HPV is a sexually transmitted infection (STI) and that it can cause cervical cancer. Thirty-eight percent (38%) of interviewees mentioned the preventive character of vaccines. Age and education were the two variables that were statistically associated with the outcome. Younger and more educated women who participated in this study were more likely to know about the association between HPV infection and the risk of cervical cancer. 12% of the studied women are unaware about cervical cancer. Considering the cancer awareness all the participants are aware of cancer and they have reported that this is a fatal disease. Considering the cervical cancer 88% participants have the knowledge of cervical cancer but 12% don't know about it and they have never heard of the term. It is might be a hard truth.

The education seems to have been an impact on the awareness about cervical cancer. Most of the graduate women and the women who have done higher studies than graduate are aware about cervical cancer than others. And majority of H.S. passed women are unaware about this disease. It indicates that education also has a small impact on awareness about the disease.

The different types of occupation also have an impact on awareness about cervical cancer. It reveals that the occupations which are related with more global exposure has an impact on updating the respondents view about society and others don't have such impact. It is depicted from the present study that among all the unaware women 83.33% women involved in Government job.

The respondents who are aware about the term 'cervical cancer' also have different views about the place of infection. 91% of them are aware about the place but other 9% are unaware about the place of infection. Another thought provoking truth came out from the present study that among all the aware women 14 % do not know that only the women are affected by this disease, not males. The infection of Papilloma virus has been starts from the young age, the cancer has starts to show its symptoms at middle age or older age. But in reality only 12% of the women are concerned about it while 70% and 18% respectively, are not fully concern about the effected age group and are unaware about the effected age group. Regarding the contamination of the disease 28 % are unaware and 22% have a wrong knowledge regarding the contamination of the disease. It is very muc thought provoking that 50% f the participants have no knowledge or wrong knowledge.

The main way of contamination of this disease is related with sexual relation. It includes unprotected sex practice, multiple sex partners. 50% of the total respondents state that it is

a contaminated disease. Among them, 59% respondents state the contamination occurs through unsafe sex practices and 3% give emphasis on other reasons. And 38% of the respondents don't know any way of contamination.

Men are the carrier of this disease. 52% of the respondents are concern about the fact. 16% of the respondents are unaware of the fact that only men are the carriers of this disease while 32% of the respondents can't give the answer.

Practicing safe sex, vaccination and regular check up and medication helps to prevent cervical cancer among the working women. 64% of the respondents are aware about the different ways of prevention of this disease while 4% are unaware about it. And 32% of the respondents can't give the answer. Balanced nutritional intake, Practicing safe sex, Avoiding multiple sex partners, Practicing safe sex & regular check-up, Regular check up & test, Vaccination may restrict the disease from contamination.

Sexual relations can induce cervical cancer in a woman and the Human Papilloma Virus carries through male from one woman to other. 48% of the respondents states the above ways of inducing cervical cancer in women. 10% of the respondents give emphasis on nutrition, genetically and environmental factors of inducing this type of cancer. It seems they are unaware about the actual fact. And 42% of the respondents don't know any cause of inducing cervical cancer in women. Unhealthy lifestyle, Genetic & environmental effect, Unsafe sex practices, Multiple partners, Viral attack, Nutritional imbalance might be the reason of contamination the disease.

Early vaccination in the age between 9 years to 23 years is effective in the prevention measure of this disease. And women of 26 years to 30 years also can have an effect of vaccination. 38% of the respondents are aware about the presence of vaccination in the prevention of this disease. And 28% of the respondents feel that there are no such vaccines which can prevent this disease. And 34% of respondents are unaware about the vaccination of this disease. 56.5% have no knowledge of vaccination.

46% of the respondents don't take vaccines because they think they didn't spend such a lifer that cervical cancer can occur to them. 4% of the respondents believe that they are going for regular check up so they don't need any such vaccines. While 28% and 18% of the respondents, respectively don't think that there is any vaccine to prevent the disease and don't know anything about vaccination. While 4% of the respondents have taken vaccine because they don't want to get effected by this disease as they are quite exposed to its inducing reasons. Another hard reality that the general medical practitioner do not have any knowledge of the disease so do not suggests the people for vaccination. Screening is the process of determining cervical cancer in a human body. It is a way to detect abnormal cervical cells, including [precancerous cervical lesions](#), as well as early cervical cancers. 58% of the respondents are aware about the screening process while 30% of the aware respondents are unaware about the screening process and 12% are unaware about the disease itself. 29% respondents are aware about the term 'screening' but among them 41% respondents know the ways of screening and 59% of the respondents are unaware the ways behind this process. A Pap smear, also called a Pap test, is a procedure to test for cervical cancer in women. A Pap smear

involves collecting cells from your cervix — the lower, narrow end of the uterus that's at the top of the vagina. It can detect changes in the cervical cells that suggest cancer may develop in the future. 62% of the aware respondents of the disease are aware about the PAP test but 26% of the aware respondents are unaware about the PAP test and 12% of the respondents who are unaware about the disease are also unaware about this test. 22% of the respondents have experienced the PAP test and 78% of the respondents don't have any such experiences. According to 76% respondents who are aware about the process of screening it is necessary to the adults. While 10% and 14% of the respondents, respectively, there is no necessity of screening to the adults and don't have any idea about the necessity. According to 59% respondents' fear of social stigmas are barriers for screening even if some feel the necessity. And 14% respondents say that there is no such thing to be a barrier in case of prevention or diagnosis of this disease. And 27% of the respondents have no idea about this topic. Gynecological problem also has direct relation with the effect of cervical cancer. As it is the cancer in the uterus, it also can increase gynecological problems. 78% of the respondents don't have any gynecological problem whereas 22% the respondents have gynecological problem. 10% of the respondents who have gynecological problem have faced PCOS and 12% of the respondents have menstrual problem. 28% of the respondents who are aware about screening have seen at least one cervical cancer patient but only 5% of the respondents who are unaware about screening have seen at least one cervical cancer patient. It means that awareness of this disease also depends on exposure of seen this disease. Smoking has an impact on inducing of cervical cancer. 32% of the respondents think that smoking has an impact on inducing cervical cancer in women whereas 22% of the respondents state that it has no effect. 46% of the respondents don't have any idea about the effect of smoking on cervical cancer. Considering the present study the majority of the respondents are against the presence of any socially prescribed way in prevention of the disease. A small percentage of respondents believe in such ways in the prevention of this disease and they are not highly educated. And some of the respondents have no idea about it. 20% of the respondents have experienced the pre-marital sexual relation and all of them are aware about the disease and 80% of the respondents don't have any pre-marital sexual relation and 85% among them are aware about the disease and other 15% are unaware about the disease.

V. DISCUSSION

The present study has been conducted to evaluate the general awareness of cervical cancer risk factors, American Cancer Society, 2013; Saslow et al, 2012; Ronco et al, 2007; Paovonen et al, 2009; Massed et al, 2013. Women, who participated in this study, had the knowledge that they had been diagnosed with cervical cancer, in addition, the majority of them had stated that cervical cancer could be prevented; however, only 52.27% of them had accurately identified HPV as the primary risk factor for cervical cancer. Although, our finding concurs with previous reports that only a small fraction of women have knowledge accuracy about HPV and its association with cervical cancer, Massed et al, 2013; Lacer et al, 2003; Kumar et al, 2007; Hogewoning, 2003; Harnandaz, 2008; Anderson et al,

2014; Adam et al, 1985; Faculdade et al, 2011; Eifel et al, 2011; Erratum et al, 2010. Various models of disease prevention are proponent of the influencing role of physicians in effectively educating women and motivating them to take more active roles in their primary and secondary health care interventions. Similar to previous findings it can also found that younger and more educated women were more likely to know about the association between HPV infection and the risk of cervical cancer, Winer et al, 2006; Troisi et al, 2007; Tokudome et al, 2004; Schiffman et al, 2007. This is because now-a-days they are exposed more in the societal problems, internet, and other fields which helps to know about the current traditions of the society than older ones. 84% respondents who are aware about the disease have passed graduate or more than that. While 4% of H.S. passed are aware about the disease. And 6% H.S. passed and 6% graduate respondents are unaware about the disease. Majority of the aware respondents are worked at different educational institute or global fields whereas all unaware respondents are worked in different types of service. 86% women are aware about the effected group but 14 % are not at all aware of it. Only 12% of the women are concerned about the effected age group while 88% are unaware about it. Among the respondents 50% states that this is a contaminated disease while 22% states it as not contaminated disease. And 28% of respondents don't know the answer. 59% respondents state the contamination occurs through unsafe sex practices and 3% give emphasis on other reasons. It seems that majority of the aware respondents are aware about the contamination. Education also has an impact on cervical cancer awareness 90% of the respondents are avoiding socially prescribed ways to prevent this disease who are graduate and do higher studies than graduate study while 2% of H.S passed students believe in this kind of ways. In the modern society among the working women the awareness of cervical cancer is very less, it might be a great threat to us as well as in our society also.

REFERENCES

- [1] Adam E, Kaufman RH, Adler-Storthz K, et al. A prospective study of association of herpes simplex virus and human papillomavirus infection with cervical neoplasia in women exposed to diethylstilbestrol in utero. *Int J Cancer*. 1985;35(1):19–26.
- [2] American Cancer Society. *Cancer Facts & Figures 2014*. Atlanta, Ga: American Cancer Society; 2014. American Cancer Society. *Cancer Prevention & Early Detection Facts & Figures 2013*. Atlanta, Ga: American Cancer Society; 2013.
- [3] American Cancer Society. *Detailed Guide: Cervical Cancer*. Accessed at <http://www.cancer.org/Cancer/CervicalCancer/DetailedGuide/index> on March 28, 2013.
- [4] Anderson TA, Schick V, Herbenick D, Dodge B, Fortenberry JD. A study of human papillomavirus on vaginally inserted sex toys, before and after cleaning, among women who have sex with women and men. *Sex Transm Infect*. 2014 Apr 16.
- [5] Ault KA, Future II study group. Effect of prophylactic human papillomavirus L1 virus-like particle vaccine on risk of cervical intraepithelial neoplasia grade 2, grade 3, and adenocarcinoma in situ: a combined analysis of four randomised clinical trials. *Lancet*. 2007;369(9576):1861–1868.
- [6] Castellsagué X, Bosch FX, Muñoz N, Meijer CJ, et al. Male circumcision, penile human papilloma virus infection, and cervical cancer in female partners. *N Engl J Med*. 2002 Apr 1; 346(15):1105–1112.
- [7] Centers for Disease Control and Prevention (CDC). FDA licensure of bivalent human papillomavirus vaccine (HPV2, Cervarix) for use in females

- and updated HPV vaccination recommendations from the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep.* 2010 May 28;59(20):626–629.
- [8] Erratum in: *MMWR Morb Mortal Wkly Rep.* 2010 Sep 17;59(36):1184
- [9] Eifel PJ, Berek JS, Markman, M. Cancer of the cervix, vagina, and vulva. In: DeVita VT, Hellman S, Rosenberg SA, eds. *Cancer: Principles and Practice of Oncology*. 9th ed. Philadelphia, Pa: Lippincott Williams & Wilkins; 2011: 1311-1344.
- [10] Faculdade de Ciências da Saúde. 2011. ISRN Obstetrics and Gynecology
- [11] Volume 2011., Article ID 847684.
- [12] Gadducci, A; Barsotti, C, Cosio, S, Domenici, L, Riccardo, G,A. (2011 Aug). "Smoking habit, immune suppression, oral contraceptive use, and hormone replacement therapy use and cervical carcinogenesis: a review of the literature." *Gynecological endocrinology : the official journal of the International Society of Gynecological Endocrinology* 27 (8): 597–604.
- [13] Ghosh C, Baker JA, Moysich KB, et al. Dietary intakes of selected nutrients and food groups and risk of cervical cancer. *Nutr Cancer.* 2008;60(3):331–341.
- [14] Gray RH, Serwadda D, Kong X, Makumbi F, et al. Male circumcision decreases acquisition and increases clearance of high-risk human papillomavirus in HIV-negative men: a randomized trial in Rakai, Uganda. *J Infect Dis.* 2010 May 15;201(10):1455–1462.
- [15] Hatch EE, Herbst AL, Hoover RN, et al. Incidence of squamous neoplasia of the cervix and vagina in women exposed prenatally to diethylstilbestrol (United States). *Cancer Causes Control.* 2001;12(9):837–845.
- [16] Hernandez BY, Wilkens LR, Zhu X, et al. Transmission of human papillomavirus in heterosexual couples. *Emerg Infect Dis.* 2008;14(6):888–894.
- [17] Hogewoning CJ, Bleeker MC, van den Brule AJ, et al. Condom use promotes regression of cervical intraepithelial neoplasia and clearance of human papillomavirus: a randomized clinical trial. *Int J Cancer.* 2003;107(5):811–816.
- [18] Appleby P, Beral V, Berrington de González A, Colin D, Franceschi S, Goodhill A, Green J, Peto J, Plummer M, Sweetland S. Cervical cancer and hormonal contraceptives: collaborative reanalysis of individual data for 16,573 women with cervical cancer and 35,509 women without cervical cancer from 24 epidemiological studies. *International Collaboration of Epidemiological Studies of Cervical Cancer. Lancet.* 2007;370(9599):1609–1621.
- [19] Jhingran A, Eifel PJ, Wharton JT, et al. Neoplasms of the cervix. In: Kufe DW, Pollock RE, Weichselbaum RR, Bast RC, Gansler TS, Holland JF, Frei E, eds. *Cancer Medicine* 6. Hamilton, Ontario: BC Decker; 2003: 1779–1808.
- [20] Jhingran A, Russel AH, Seiden MV, et al. Cancers of the cervix, vagina and vulva. In: Neiderhuber JE, Armitage JO, Doroshow JH, Kastan MB, Tepper JE eds. *Abeloff's Clinical Oncology*. 5th ed. Philadelphia, Pa; Elsevier; 2014: 1534-1574.
- [21] Kumar, Vinay; Abbas, Abul K.; Fausto, Nelson; & Mitchell, Richard N. (2007). *Robbins Basic Pathology* ((8th Ed.) Ed.). Saunders Elsevier. pp. 718–721.
- [22] Lacey JV Jr, Swanson CA, Brinton LA, et al. Obesity as a potential risk factor for adenocarcinomas and squamous cell carcinomas of the uterine cervix. *Cancer.* 2003;98(4):814–821.
- [23] Lu B, Wu Y, Nielson CM, et al. Factors associated with acquisition and clearance of human papillomavirus infection in a cohort of US men: a prospective study. *J Infect Dis.* 2009 Feb 1;199(3):362–371.
- [24] Marrazzo JM, Koutsky LA, Stine KL, et al. Genital human papillomavirus infection in women who have sex with women. *J Infect Dis.* 1998 Dec;178(6):1604–1609.
- [25] Massad LS, Einstein MH, Huh WK, et al. 2012 Updated Consensus Guidelines for the Management of Abnormal Cervical Cancer Screening Tests and Cancer Precursors. *Journal of Lower Genital Tract Disease.* 2013;17(5):S1-S27.
- [26] Nielson CM, Harris RB, Flores R, et al. Multiple-type human papillomavirus infection in male anogenital sites: prevalence and associated factors. *Cancer Epidemiol Biomarkers Prev.* 2009 Apr;18(4):1077–1083. Epub 2009 Mar 24.
- [27] Paavonen J, Naud P, Salmerón J, et al. Efficacy of human papillomavirus (HPV)-16/18 AS04- adjuvanted vaccine against cervical infection and precancer caused by oncogenic HPV types (PATRICIA): final analysis of a double-blind, randomised study in young women. *Lancet.* 2009 Jul 25;374(9686):301–314.
- [28] Ronco G, Cuzick J, Pierotti P, et al. Accuracy of liquid based versus conventional cytology: overall results of new technologies for cervical cancer screening: randomised controlled trial. *BMJ.* 2007;335(7609):28.
- [29] Saslow D, Solomon D, Lawson H, et al. American Cancer Society, American Society for Colposcopy and Cervical Pathology, and American Society for Clinical Pathology Screening Guidelines for the Prevention and Early Detection of Cervical Cancer. *CA Cancer J Clin.* 2012;62(3):147-172. Epub 2012 Mar 14.
- [30] Schiffman M, Castle PE, Jeronimo J, et al. Human papillomavirus and cervical cancer. *Lancet.* 2007;370(9590):890–907.
- [31] Solomon D, Davey D, Kurman R, et al; Bethesda 2001 Workshop. The 2001 Bethesda System: Terminology for reporting results of cervical cytology. *JAMA.* 2002;287:2114–2119.
- [32] Tobian AA, Serwadda D, Quinn TC, Kigozi G, et al. Male circumcision for the prevention of HSV-2 and HPV infections and syphilis. *N Engl J Med.* 2009 Mar 26;360(13):1298–1309.
- [33] Tokudome S, Suzuki S, Ichikawa H, et al. Condom use promotes regression of cervical intraepithelial neoplasia and clearance of human papillomavirus: a randomized clinical trial. *Int J Cancer.* 2004 Oct 20;112(1):
- [34] Troisi R, Hatch EE, Titus-Ernstoff L, et al. Cancer risk in women prenatally exposed to diethylstilbestrol. *Int J Cancer.* 2007;121(2):356–360.
- [35] Winer RL, Hughes JP, Feng Q, et al. Condom use and the risk of genital human papillomavirus infection in young women. *N Engl J Med.* 2006;354:2645–2654.
- [36] Winer RL, Lee SK, Hughes JP, et al. Genital human papillomavirus infection: incidence and risk factors in a cohort of female university students. *Am J Epidemiol.* 2003;157(3):218-226. Erratum in: *Am J Epidemiol.* 2003;157(9):858.
- [37] Walboomers J.M., Jacobs M.V., Manos M.M., et al (1999). "Human papillomavirus is a necessary cause of invasive cervical cancer worldwide". *J. Pathol.* 189 (1): 12–9.

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