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PREVALENCE OF CERVICAL CANCER AND ASSOCIATED FACTORS AMONG WOMEN IN BAGHDAD / IRAQ

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ABSTRACT

Background: Cervical cancer is a ten most common female cancer in women aged 15-44 years in Iraq with the crude incidence rate 1.7% per 100.000 women per year. **Aims**: To assess the prevalence of cervical cancer and associated factors of women in Baghdad. **Methodology**: A retrospective study conducted in the Statistics department in Ministry of Health to get the information on patients with cervical cancer for a period from 1st January to the end of December 2013. The sample size was 65 distributed over different areas of Baghdad and concentrated mostly on the districts of the province. Information includes age, occupation, education, risk factor, and family history, stage of disease, surgery, and type of treatment. All data entered into Stata Version 20 to analyze and get some relation between variables. **Results**: The highest percentage of cervical cases 47/65(72.3%) were in the age more than 50 years, 39/65(60%) were housewives, 24/65(36.9%) were primary education status, 36/65(55.4%) had a family history of cervical cancer and 26/65(40%) had moderated economic status. Also, 17/65(26.2%) had history of smoking practice and 17/30(56.7%) had a total hysterectomy surgery and chemotherapy treatment. **Conclusion**: we conclude that the majority of cervical cancer occur to women in age above 50 years. Usage of oral contraceptive and Chlamydia infection is the most risk factor for cervical cancer. There is no statistically significant relationship between the surgery and type of treatment. **Recommendation**: we need to have health awareness

among women about cervical cancer via TV, announcement, Facebook, and civil society organizations to encourage them to do the checkup every 6 months if you have a family history of the disease or any one of the risk factors.

KEYWORD: Cervical, Iraq, Risk, Chlamydia, smoking, women, age.

INTRODUCTION

Cervical cancer is a ten most common female cancer in women aged 15-44 years in Iraq. The crude incidence rate was 1.7% per 100.000 women per year.[1]

For the definition of cervical cancer, is cancer in the cervix because of the abnormal growth of cells and thus the rapid spread of the body and can be observed these symptoms or not according to the patient's condition and the symptoms of the disease are the bleeding during the period of intercourse and pain in the bottom of the pelvis.[2]

World Health Organization (WHO) reported that the cervical cancer is the fourth common cancer among women, with an estimated about 53,300 cases in 2012 and 90% deaths. The number of cases is increasing from both lower and middle-income countries.[3]

Also, the CDC report, 4,115 out of (12,578) women in the US died from cervical cancer.[4]

Almost all cervical cancers are caused by human papillomavirus (HPV), a common virus that can be passed from one person to another during sex. There are many types of HPV. Some HPV types can cause changes of a woman’s cervix that can lead to cervical cancer over time, while other types can cause genital or skin warts.[5]

Other things can increase your risk of cervical cancer such as smoking, using birth control pills for a long time and having an HIV or another condition.[6]

This study aimed to assess the prevalence of cervical cancer cases and associated factors of women in Baghdad.

METHODOLOGY

A retrospective studied conducted in the Statistics department of Ministry of Health to get the information about patients with cervical cancer for a period from 1st January to the end of December 2013. Prior to the start the data collection the ethical clearance was obtained from Ministry of Health / Iraq. Baghdad Governorate was chosen out of 18 governorates, where

the population is about more than 7 million.[7] Cases are concentrated on areas with high population density and low income. It took about two months to collect the samples of the records, and then they were revised by another person to avoid a line or repeat in the registration.

The sample size was 65 distributed over different areas of Baghdad and concentrated mostly on the districts of the province. Information includes age, occupation, education, risk factor, and family history, stage of disease, surgery, and type of treatment.

All data entered into Stata Version 20 to analyze and get some relation between variables.

RESULTS

Out of 65 participants, the highest percentage 47/65(72.3%) were in the age more than 50 years, 39/65(60%) were housewives, 24/65(36.9%) were primary education status, 36/65(55.4%) had family history of cervical cancer and 26/65(40%) had moderated economic status [table1].

Table 1: Characteristic of participants.

Variables		Frequency	Percent
Age groups	<30	4	6.2
	31-40	3	4.6
	41-50	11	16.9
	>50	47	72.3
Occupation	Housewife	39	60
	Employee	26	40
Education status	Illiterate	7	10.8
	Primary	24	36.9
	Intermediate	10	15.4
	Secondary	13	20
	Institute and higher	11	16.9
Family history	Yes	36	55.4
	No	29	44.6
SES	Poor	8	12.3
	Moderate	26	40
	Good	31	47.7

Concerning the risk factor that increases the incidence of cervical cancer, 17/65(26.2%) of participants had smoking practice and 48/65(73.9%) were not. As well, chlamydia infection, shown in 26/65(40%) of them. 41/65(63.1%) had long-term use of contraceptive, 14/65(21.5) had intrauterine device use and 7/65(10.8%) had a weak immune system [table2].

Table 2: Distribution of participants according to risk factors of cervical cancer.

Rik factors		Frequency	Percent
Smoking or hookah	Yes	17	26.2
	No	48	73.9
Chlamydia infection	Yes	26	40
	No	39	60
Long-term use of oral contraceptive	Yes	41	63.1
	No	24	36.9
Intrauterine device use	Yes	14	21.5
	No	51	78.5
Weakened immune system	Yes	7	10.8
	No	58	89.2

Regarding stage of disease, the highest percentage of participants 13/65(20%) had stage IIB, followed by 10/65(15.3%) had stage III and 7/65(10.8%) had stage IV [table 3].

Table 3: Distribution of participants by the staging of cervical cancer.

Staging	Frequency	Percent
Stage I	4	6.2
Stage IA	2	3.1
Stage IB	1	1.5
Stage II	2	3.1
Stage IIA	6	9.2
Stage IIB	13	20
Stage III	7	10.8
Stage IIIA	10	15.3
Stage IIIB	3	4.6
Stage IV	5	7.7
Stage IVA	7	10.8
Stage IVB	5	7.7

Regarding the surgery and treatment, in this table, show that the highest percentage of participant 17/30(56.7%) had total hysterectomy surgery and chemotherapy treatment. The chi-square statistic is 5.2826. The p-value is 0.2591. There is not statistically significant relationship between variables at $p < 05$ [table 4].

Table 4: Distribution of participant according to surgery and type of treatment.

Surgery	Radiotherapy		Chemotherapy		A combination of two or more of the treatment		Total	
	F.	%	F.	%	F.	%	F.	%
Total hysterectomy	7	23.3	17	56.7	6	20	30	100
Radical hysterectomy	3	21.4	6	42.9	5	35.7	14	100
Total Abdominal Hysterectomy with Bilateral Salpingo-Oophorectomy	9	42.9	10	47.6	2	9.5	21	100
Total	19	29.2	33	50.8	13	20	65	100

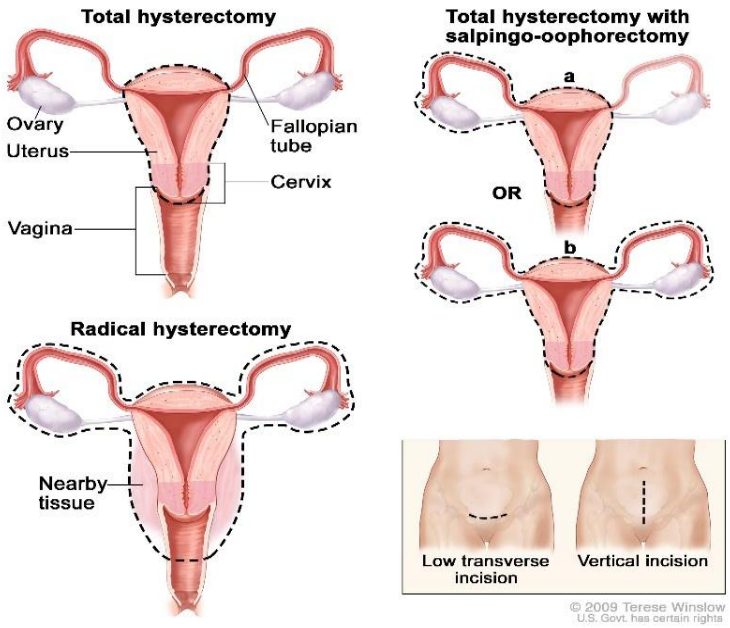

Figure 1: type of surgery for cervical cancer.

DISCUSSION

The aims of this study to assess the prevalence of cervical cancer cases and associated factors of women in Baghdad.

Women with age more than 50 years are more likely to get cancer. In our finding indicate that the 72.3% of cervical cancer cases fall in the age more than 50 years and compared with other studies in England[8] and India[9], the authors found that the women of age above 65 years are more susceptible to get cancer than others age groups, this difference referred to different of attitude and standard of living between countries.

In most developing countries women are suffering from loss of their right to education and profession because of the customs and traditions and racial discrimination between men and women. Therefore, in previous study found that the most diseases fall on women more than men because of ignorance and poverty, and in our study found that the (60%) of cases were housewives and 36.9% had primary education status, and compared with other studies in Thailand[10] and Nigeria[11], this refers to the majority of women are working to get a requirement for living because of the life is so difficult in these countries.

Familial and genetic factors have a relevant role in cancer risk and may interact with environmental exposures. In another hand, (55.4%) had a family history of cervical cancer, compared with similar studies in US[12] and Korean[13] because of the trend of standard living

between these countries also there are other factors as smoking, drinking alcohol, sexual practices, all of these are affecting them and led to increasing the getting this cancer.

Also, the economic status is considered a part of factors that increase to infect of cervical, in this study found that the (40%) had moderate economic status and compared with other studies in US[12] and Korean[13], they found that some of them are suffering from deterioration of financial status and maybe for some, they don't have health assurance to get some check-up.

Cigarette smoking has been associated with increased risk of cervical cancer. In our study found that the 26.2% of participants had smoking practice, compared with the similar study in Sweden[14], they found that the smoking is related to cancer, this refers to the most of the women are smoking according to the human right.

As well, chlamydia infection in (40%) of cases and when compared with another study in Brazil[15], the authors found the majority of cases are suffering from the infection, this refers to an open relation with men without any barrier or back to religion.

In addition, we found that 63.1% of cases used contraception in the long -term. Compared to another study in Sweden[14], researchers found that few women used contraception and they used external ejaculation. This refers to a difference of practice of this country.

In our findings, 10.8% of cases had a weak immune system. When compared to another study in the United States[12], the researchers found that most cases were vulnerable to HIV and sexually transmitted infections, and this also indicated the difference between culture And religion between the two countries. There are no rules prohibiting women from establishing relationships with men after the examination.

Regarding the stage of cervical cancer, the type of treatment also depends on the type of stage and the physician decide which treatment should be given to the patients. In our results found that the (20%) of cases had stage IIB, compared with another study in Colombia[16], the authors found the majority of cases had the 2nd stage, this due to the countries are suffering from unstable situation also they exposed to war and use different types of weapons and exposure to radiation.

For the surgery, they used as a way to eradicate cancer. In our finding, there are 56.7% had total hysterectomy surgery. Compared with another study in the US[17], they prefer using the radical hysterectomy more than other procedure, to give chance for women to get pregnant in future without infertility.

CONCLUSIONS

We concluded that the majority of cervical cancer occur to women in age above 50 years. Usage of oral contraceptive and Chlamydia infection is the most risk factor for cervical cancer. There is no statistically significant relationship between the type of surgery and type of treatment.

RECOMMENDATION We need to have health awareness among women about cervical cancer via TV, announcement, Facebook, and civil society organizations to encourage them to do the checkup every 6 months if you have a family history of the disease or any one of the risk factors. Therefore, we need to build a strong base to prepare accurate information on the numbers of registered patients that allow the researchers to obtain accurate information on their research.

Limitation

Obstacles to this study were lacking registration of all cancer cases of women after 2013 and this led to a lack of knowledge of the total number of cancer patients as well as those under treatment and the dead of them On the other hand, some of them visit the hospital and the patient is registered after taking all the information and opening a file for them and after a period of time, they transfer to a non-hospital and registration again in that hospital and this causes a discrepancy in information and numbers. Also, some of them do not review the hospitals inside the country and prefer to travel outside to take the treatment and this affects the accuracy of the information that comes to us.

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