Assessment of Women's Knowledge Concerning Hydatidiform Mole at Maternity Hospitals in Baghdad City

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Abstract

Hydatidiform mole results from abnormal fertilization. It is the most common disorder of gestational trophoblastic diseases can be partial or complete. Early detection of molar pregnancy and monitoring can reduce complication particularly coriocarcinoma. The fetus typically dies, and a miscarriage often occurs.

Objectives: To assess women's knowledge concerning Hydatitiform mole and find out the association between women's knowledge with their study variables.

Methods: Descriptive study was conducted from November 2019 to February 2020 at maternity hospitals in Baghdad city. Non probability (purposive sample) was used to collect the data from (100) women who attending outpatient clinics at maternity hospitals. A questionnaire was constructed about knowledge assessment tool were designed and prepared by the researcher. A pilot-test is conducted in order to determine the reliability of the questionnaire in a sample of (20) women who were excluded from the study sample. Data was analyzed through the use of SPSS version 20.

Results: The main results revealed that the highest percentage (41.6%) of women's age was (20-29) years. More than half of them (60 %) are graduated from Secondary Nursing School. They have inadequate knowledge. There are no statistical significant differences between level of knowledge and women's age or educational level.

Conclusion: This study shows that the knowledge of study sample concerning Hydatitiform mole was inadequate.

Recommendations: It is important to design a booklet or pamphlet about Hydatitiform mole risk factors, signs and symptoms, screening, to reach for all women over the country in order to early detection and prevention.

Keywords: *Knowledge, Hydatidiform Mole, Molar Pregnancy, Women*

Introduction

Hippocrates (470–410BC) was first who described the moles and explained that if the pregnant women consume some dirty water the mole will be formed, where the water originates from the marshes. William Smelie (1752) was employed the terms mole and hydatidiform [1].

hydatidiform mole (HM) is a condition in a category of pathologies known as Gestational Trophoblastic Disease (GTD) that are resulted from abnormal fertilization. GTD encompasses HM, invasive mole, and choriocarcinoma. These diseases are range from benign to invasive neoplasia. Fatal outcomes in the past were a high rate from these pathologies, while it has a (98%) cure rate currently with proper diagnosis and treatment. HM is the most common form of GTD and can be cure if early diagnosed and treated. molar pregnancy has a risk of recurrence in subsequent pregnancy [2].

The incidence of Complete HM In the developed countries is about (one to three per 1000 pregnancies) and the Partial HM about (three per 1000 pregnancies). These moles are not recurrent except in the rare cases, when a single family member has recurrent HM known

as singleton cases, and when at least 2 women from a family member have one or several HMs known as familial recurrent HMs [3].

Molar pregnancy has two types can be determined by analyzing the chromosome. With complete mole, all trophoblastic villi swell and become cystic. Embryo may not forms or if it form will dies early only 1 to 2 mm, with no fetal blood in the villi. On chromosome analysis, although the karyotype is an normal 46XX or 46XY, this chromosome component was only contributed by the father or a "empty ovum" was fertilized and the chromosome material was duplicated. With a partial mole, some of the villi form normally. The syncytiotrophoblastic layer of villi, however, is swollen and deformation. A macerated embryo of approximately 9 weeks' gestation may be present and fetal blood may be present in the villi. A partial mole has 69 chromosomes (a triploid formation in which there is three chromosomes instead of two for every pair, one set supplied by an ovum that apparently was fertilized by two sperm or an ovum fertilized by one sperm in which meiosis or reduction division did not occur). This can also happen if one set of 23 chromosomes is provided by one sperm and an ovum that did not undergo reduction division supplied 46. (Fig. 1) [4].

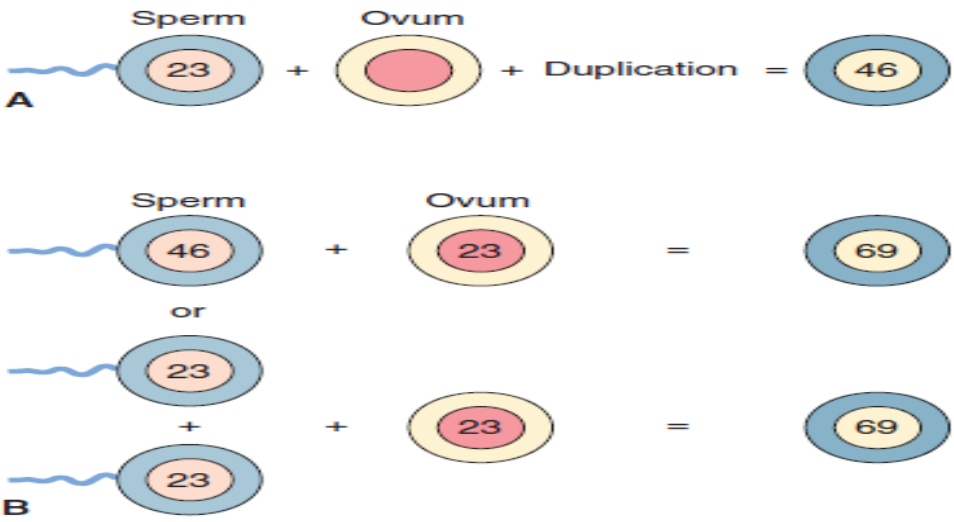

FIGURE 21.4 Formation of gestational trophoblastic disease (hydatidiform mole). (**A**) Complete mole. (**B**) Partial mole.

Figure 1 formation of HM (A) complete mole (B) partial mole

Pregnant women may be asymptomatic, or they may experience multiple symptoms such as Vaginal Bleeding, Hyperemesis, Increased Pelvic Pressure, Anemia secondary to bleeding, Maternal Hypertension, uterus enlargement more than expected for gestational age [5].

Molar pregnancy diagnosis is based on patient history, physical examination, human Chorionic Gonadotropin level, and ultrasound findings. the women should be assessed for any medical complications such as (anemia, preeclampsia, hyperthyroidism), which may need to be treated. Laboratory tests should include complete blood count, comprehensive metabolic panel, thyroid function test, urinalysis, and chest x-ray, as well as blood type and screen with cross match if anemic or uterus ≥ 16-week gestational size. An electrocardiogram and coagulation profile may also be indicated. Once the patient is determined to be hemodynamically stable, the most appropriate method of molar evacuation should be decided upon [2,6,7].

Preventive chemotherapy at a time or immediately after the prenatal evacuation is associated with a decrease in the incidence of complications from about (15 – 20) percent to (3- 8) percent. The use of prophylactic chemotherapy should be limited to special cases who have the risk of complications such as (women age

40 years, hCG> 100,000 mIU / mL, excessive uterine hyperplasia, theca lutein abscesses> 6 cm, medical complications) and / or upon inadequate hCG follow-up. Basically, all patients should following a hCG serial test after molar evacuation [8-9].

Materials and Methods

Descriptive analytic study design was conducted among women attending outpatient clinics at maternity hospitals to assess their knowledge about molar pregnancy. The study was performed from November 2019 to February 2020 at maternity hospitals in Baghdad city. Non probability (purposive sample) used to collect the data from (100) women. A questionnaire was designed by the researcher about knowledge of molar pregnancy assessment tool. A pilot study conducted in order to determine the reliability of the questionnaire in a sample of (20) women who excluded from the study sample (r1= 0.96). Content validity was determined through a panel of (10) experts their experience mean and SD was 28.82 ± 7.5. The data was collected after obtaining the agreement from women to participant in this study. The study instrument was consisted of two parts which include: Socio demographic characteristics, women's knowledge about molar pregnancy consisted of (13) items. Data are analyzed through the use of SPSS (Statistical Process for Social Sciences) version 20.

Table (1) Distribution of Study Sample According to Socio-demographic Characteristics (n=100)

Socio Demographic Characteristics	F	%
Age / years		
< 20	3	3
20-29	42	41.6
30-39	37	36.6
40-49	18	17.8
Mean=30.97 SD=6.5		
Marital Status		
Married	90	90
Divorced	5	5
Widow	5	5
Educational level		
Primary school	1	1
Secondary School	60	60
Institute graduate	17	17
College graduate	19	19
Master and higher	3	3

This table illustrates that the highest percentage (41.6%) of women's age were (20-29) years. Regarding marital status the higher percentage (90%) of them were married. Regarding educational level more than half of them (60%) were graduated from secondary school.

Table (2) Women's knowledge about Hydtitiform mole disease (n=100)

No.	Item	Correct answer		False answer		MS	RS	Ass
		F	%	F	%			
1.	Hydtitiform mole is pregnancy outside uterus	53	53	47	47	1.53	76.5	M
2.	Hydtitiform mole has two types	29	29	71	71	1.71	85.5	M
3.	The Hydtitiform mole occurs as result of dysfunction in uterus	41	41	59	59	1.41	70.5	L
4.	The Hydtitiform mole likely to occur in women with age older than 30	36	36	64	64	1.36	68	L
5.	Infertility is a risk factor of Hydtitiform mole	55	55	45	45	1.45	72.5	L
6.	Bleeding is a symptoms for Hydtitiform mole	44	44	56	56	1.56	78	M
7.	Hydtitiform mole usually diagnosed at first month	33	33	67	67	1.33	66.5	L
8.	HCG level in Hydtitiform mole is high	45	45	55	55	1.55	77.5	M
9.	The early treatment of the Hydtitiform mole is chemotherapy	23	23	77	77	1.23	61.5	L
10.	The women is advised to use contraception to avoid Hydtitiform mole recurrence	74	74	26	26	1.26	63	L
11.	Patient with Hydtitiform mole use contraception for 6 month	44	44	56	56	1.56	78	M
12.	Future Pregnancy for patient with Hydtitiform mole can be normal	59	59	41	41	1.41	70.5	L
13.	The causes of Hydtitiform mole is Viral	47	47	53	53	1.47	73.5	L

(M.S) mean score (R.S) relative sufficiency (Ass.) assessment (Low= ≥ 75), (Moderate= 75.1-87.5), (High= 87.6-100)

This table shows that there are a moderate level of relative sufficiency and mean score regarding Hydtitiform mole knowledge for nurses in the items No. (1,2,6,8,11), while the remaining items was low level of relative sufficiency and mean score.

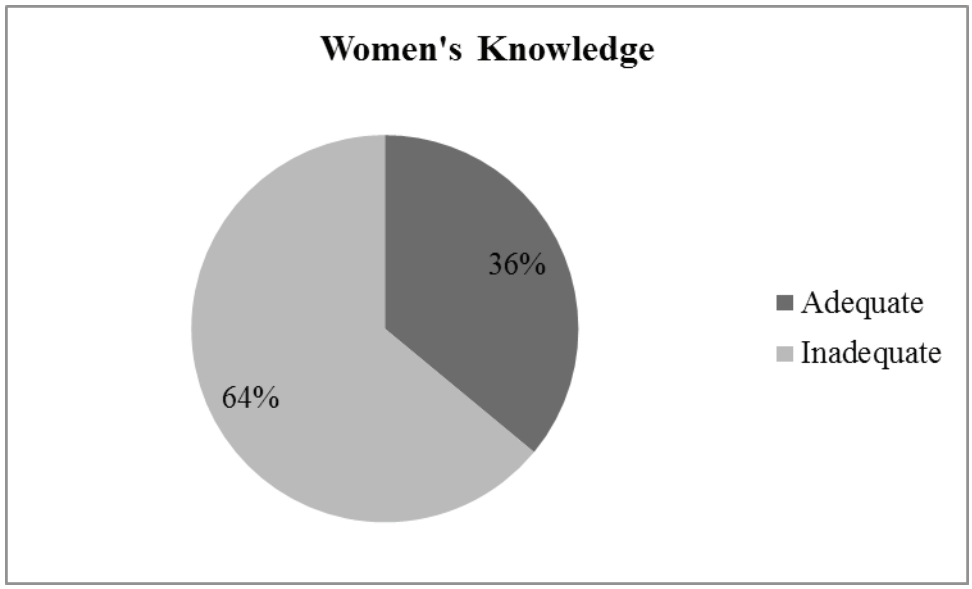

Figure (2) **Women's knowledge toward molar pregnancy**

Table (3) Association between women's knowledge and Socio-demographic variables (n = 100)

Women's Knowledge / Socio-demographic variables		Adequate		Inadequate		Chi square statistics			Sig.
		F	%	F	%	Value	df	P-value	
Age / years	< 20	2	66.7	1	33.3	2.258	3	.521	Ns
	20-29	13	31	29	69				
	30-39	13	35.1	24	64.9				
	40-49	8	44.4	10	55.6				
Educational level	Primary school	1	1	0	0	2.981	4	.561	Ns
	Secondary School	25	36.8	43	63.2				
	Institute graduate	7	38.9	11	61.1				
	College graduate	2	20	8	80				
	Master and higher	1	33.3	2	66.7				

(df) degree of freedom, (Sig) significant Probability value ($P < 0.05$), (NS) Non Significant,

(s) significant.

This table shows that there are no statistical significant between socio-demographic variables and women's knowledge about Hydtitiform mole.

Discussion

The finding of this study show that the highest percentage of women (42.3%) was at age group (20-29) years. Regarding marital status the higher percentage of study sample (59.6 %) was married. Regarding educational level more than half of them (62.5%) were graduated from secondary school.

The condition tends to occur most often in women who have a low protein intake, in women older than age 35 years, in women of Asian heritage, and in blood group A women who marry blood group O men[4].

Patients with complete moles were registered in England and Wales, from (2000 to 2009) was (5,793) and with partial moles was (7,790), compared with a total number of (8,242,511) conceptions. The incidence of overall molar pregnancy was one for every (607) conceptions (complete mole was 1:1,423 and partial mole was 1:1,058), but with major variations with patient's age. Complete moles, the risk varied (1:1,000 for women aged 18 – 40 to 1:156 for women aged 45 and 1:8 for women aged 50 and above) [10].

The risk of complete mole and partial mole is strongly associated with maternal age; the researchers calculated the overall recurrence risk. They stated most women with a pregnancy affected by molar pregnancy were within the age (20 to 40). The relationship with maternal age was not significant, and the recurrence rate (1.5–2.0%) was likely to be accurate[11].

This study result show that women's knowledge was inadequate about Hydtitiform mole, but there are a moderate level of relative sufficiency and mean score regarding Hydtitiform mole knowledge for women in the items "Hydtitiform mole is pregnancy outside uterus, Hydtitiform mole has two types, Bleeding is a symptoms for Hydtitiform mole , HCG level in Hydtitiform mole is high, Patient with Hydtitiform mole use contraception for 6 month"

The items was low level of relative sufficiency and mean score include "The Hydtitiform mole occurs as result of dysfunction in uterus, The Hydtitiform mole more likely to occur in women with age older than 30, Infertility is a risk factor of Hydtitiform mole , Hydtitiform mole usually diagnosed at first month, Early treatment of the Hydtitiform mole is chemotherapy, The women is advised to use contraception to avoid Hydtitiform mole recurrence, Future pregnancy for patient with Hydtitiform mole can be normal, the causes of Hydtitiform mole is viral"

Women should be aware of the signs and symptoms, required diagnostic testing, and follow-up for molar pregnancy to prevention of complications.

A woman suffering from a pregnancy loss, she must face the early end of pregnancy and the loss of expected life with her baby. A little attention has been paid to the psychological and social needs of women who have molar pregnancy, though much has been written about perinatal mortality in general. Their unique condition as obstetric diseases is not only loss of the fetus but also anomalous growth of trophoblastic tissue. However, women who suffer from molar pregnancy are still experiencing an expected child loss[12].

Conclusion

This study revealed that women's knowledge was inadequate about molar pregnancy and there are no statistical significant differences between level of knowledge and women's age or educational level.

Recommendation

Women should be informed about molar pregnancy to understand their signs and symptoms for early detection of molar pregnancy to prevention of invasive mole and choriocarcinoma.

Funding: This research was funded by Author. Moreover, I would like to thank all the women who participated in this study and pay tribute to them for their supporting this project.

Conflict of Interest: None declared

Ethical Approval: Not required

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