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Clinical study of vesicular mole at MGM Medical College, Indore

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Abstract

Background: Vesicular mole is an abnormal condition where there is partly degeneration and partly hyperplastic changes in the young chorionic villi. The purpose of this study is clinical presentation of molar pregnancy, serum β -hCG regression curve and further management.

Methods: This was a retrospective study undertaken in the Department of Obstetrics and Gynecology at the tertiary care center for the study period from January 2018 to December 2018.

Results: Incidence of vascular mole was 0.23% in 12598 deliveries in one year. 60% women were in the age group 20-24 years, 20% in the age group 25-29 years and 10% were in the teenage group. 66.6% women were between gravidity 2-4.

Conclusions: There was a significant association of serum β -hCG $>1,00,000$ mIU/ml with theca lutein cysts >6 cm. 11.76% women with complete mole had elevated TFT while not a single woman with partial mole had elevated TFTs.

Keywords: Complete, Partial, Theca lutein cysts

Introduction

Vesicular mole is an abnormal condition where there is partly degeneration and partly hyperplastic changes in the young chorionic villi. In 400 BC, Hippocrates 1st described hydatidiform mole as 'dropsy of uterus'. Seckle *et al* reported the incidence of complete hydatidiform mole as 1:100 pregnancies and state that 15% complete hydatidiform moles are likely to be transferred into malignant gestational trophoblastic neoplasia which if undiagnosed can be rapidly fatal.¹ Major breakthrough in the management was brought first time by Lee when chemotherapy was introduced for the treatment of gestational trophoblastic neoplasm.

Based on thorough pathologic review, the incidence of complete and partial mole was found to be 1 per 1945 and 1 per 695 pregnancies respectively.² Timely diagnosis and treatment has good survival rate even in presence of disseminated disease. The purpose of this series was to study clinical presentation of molar pregnancy.

Methods

It was retrospective study undertaken in the Department of Obstetrics and Gynecology at the M Y Hospital Indore for the study period from January 2018 to December 2018.

Inclusion criteria: include all diagnosed cases of vesicular mole in tertiary care center.

Exclusion criteria: include invasive mole and choriocarcinoma.

On admission, all women had a detailed history and examination. All women were divided on the basis of socioeconomic background by Kuppuswaami classification. All women were subjected for baseline and special investigations.

Baseline investigations

- Haemoglobin estimation
- Urine analysis
- Blood grouping and typing
- Liver function tests
- Kidney function tests
- Bleeding time

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- Clotting time
- ECG

Special investigations

- Serum β -hCG
- Chest X-ray (P-A) view in standing position
- Thyroid function tests

In all women, transabdominal and transvaginal ultrasonography was done for confirmation of diagnosis. On ultrasonography, complete molar pregnancy and typical "snow storm appearance" while partial molar pregnancy showed large placenta, cystic spaces within the placenta & gestational sac which was either empty or containing growth retarded fetus. Theca lutein cysts showed either 'soap-bubble' or 'spoke-wheel like' appearance on ultrasonography. If women were having severe anemia (Hb <7gm%); blood transfusion was given, preferably packed cell volume. Blood was kept ready for women who were not anemic. Suction evacuation was the procedure of choice. It was done by using MVA (manual vacuum aspiration) syringe.

Results

Incidence of vascular mole was 0.23% in 12598 deliveries in 1 year duration. Around 18 (60%) women were in the age group 20-24 years, 6 (20%) in the age group 25-29 years and 3 (10%) in the age group >30 years and 3 (10%) were in the teenage group.

20 (66.6%) women were between gravidity 2-4, 10 (33.30%) women were prim gravida and. Antecedent pregnancy as >20 weeks in 2 (6.6%) women and as first trimester abortion in 9 (30%) women and 13-16 weeks in 15(50%) women and 17-20 weeks in 4 (13.3%) women

In complete molar pregnancy, 21 (70%) women had size/height of uterus larger than period of amenorrhea, 6 (20%) had size/height corresponding to period of amenorrhea while 3 (10%) had size/height of uterus less than period of amenorrhea.

Table 1: Incidence of vesicular mole

Total number of deliveries	Number of women with vascular mole
12598	30

Table 2: Age wise distribution of women

Age in years	Number	Percentage
15-19	3	10%
20-24	18	60%
25-29	6	20%
>30	3	10%

Table 3: Clinical Presentation of Women

Symptoms	Complete mole		Partial mole	
	Number	Percentage	Number	Percentage
Amenorrhoea	21	70%	2	6.6%
Bleeding PV	20	66.6%	3	10%
Pain in Abdomen	6	20%	1	3.3%

Complete molar pregnancy constituted 24 (80%) of the study group while 6 (20%) women had partial mole. The most common symptom of presentation in women with complete mole was amenorrhoea in 21 (70%) women, pain in abdomen in 6 (20%) and bleeding P/V in 20 (66.6%). The most common symptom of presentation in women with partial mole was pain in abdomen in 1(3.3%) women, amenorrhoea in 3 (10%) and bleeding P/V in 2 (6.6%).

Table 4: Gravida Wise Distribution of Women

Gravida	Number	Percentage
G1	10	33.3%
G2	12	40%
G3	5	16.6%
G4	3	10%

Discussion

Gestational trophoblastic disease (GTD) includes a tumors and tumor like conditions that originate from the fetal chorion (hydatidiform mole, invasive mole, choriocarcinoma, placental site trophoblastic tumor). Vesicular mole is principally a disease of chorion. Death of the ovum or failure of the embryo to grow is essential to develop a vesicular mole.

There is trophoblastic proliferation with mitotic activity affecting both syncytiotrophoblastic and cytotrophoblastic layers. This causes excessive secretion of β -hCG, chorionic thyrotropin and progesterone. On the other hand, estrogen production is low due to absence of foetal supply of precursors. In complete mole, all or most of the villi are oedematous and there is diffuse trophoblastic hyperplasia. Cytogenetic studies of these moles show that more than 90% have 46, XX diploid pattern all derived from the sperm. This phenomenon is called "androgenesis". They are presumed to result from fertilization of such an empty egg by two sperm (46 XX and XY). In partial moles, some of the villi are edematous and other villi show only minor changes. The trophoblastic proliferation is focal. In these moles, the karyotype is triploid (ed. 69, XXY) or even occasionally tetraploid. The moles result from fertilization of an egg with one or two sperm. The embryo is viable for weeks and thus fetal parts may be present when the resultant mole is aborted. Fels, Ernhart and Reosler demonstrated excessive levels of gonadotrophins in the urine of women with vesicular mole and noted that hCG in normal pregnancy and that secreted in trophoblastic disease is similar in chemical and immunological aspects.

In present series, 30 women diagnosed as vesicular mole were studied between periods of January 2018 to December 2018. Out of them, 24 women were having complete mole and 6 were having partial mole. Sekharan PK found incidence of vesicular mole as 1 in 150 to 1 in 300 deliveries.3 in the series by Dan Kaye the incidence was found to be 3.42 per 1000 deliveries.4 In present series, the incidence of vesicular mole was found to be 0.23% in 12598 deliveries in one year. In a series of 942 cases studied by Sekharan PK risk of developing hydatidi form mole among teenagers was almost double and that for women over age 40 years was almost ten times compared to overall incidence.3 In the series done by Lawrence *et al* maximum number of women i.e. 56.94% were in the age group 20-30 years.5 Kaye D in his series found 41.4% women between the age group 20-30 years.4 Ong HC *et al* observed that hydatidi form mole occurred most commonly in the age group 25-29 years 36.3%, 38.2% women were less than 25 years of age while 25.5% were 30 years and above in age. 6.

Conclusion

In present series, study of 30 women diagnosed as vesicular mole was done during the period of January 2018 to December 2018. Incidence of vesicular mole was 0.23% in 12598 deliveries in one year. Around 60% women were in the age group 20-24 years followed by 20% in the age group of 25-29 year and 10% were in the teenage group. In molar pregnancy, 48.71% women belonged to urban area. In present series, 66.6% women were between gravidity 2-4, 33.33% women were

primigravida. There was no significant association of serum β -hCG >1,00,000mIU/ml with raised TFTs.

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