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Original Research Article

Clinical study of vesicular mole

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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 prospective study undertaken in the Department of Obstetrics and Gynaecology at the tertiary care center for the study period from October 2007 to May 2009 approved by ethical committee.
Results: Incidence of vascular mole was 2.5 per 1000 deliveries. 46.15% women were in the age group 20-24 years, 33.33% in the age group 25-29 years and 20.51% were in the teenage group. 58.97% women were between gravidity 2-4.
Conclusions: There was a significant association of serum β-hCG >1,00,000 mlU/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 prospective study approved by ethics committee undertaken in the Department of Obstetrics and Gynaecology at the tertiary care center for the study period from October 2007 to May 2009.

Statistical analysis was done with statistical package for social sciences (SPSS) version 17.0 and epi info 6.0.

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.
- 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.

If, TFT's were raised and woman was having symptoms and sign i.e. warm skin, palpitation, tremors and tachycardia, β-blocker like T. propranolol 10mg BD was added. Suction evacuation was the procedure of choice. It was done by using MVA (manual vacuum aspiration) syringe.

RESULTS

Incidence of vascular mole was 2.5 per 1000 deliveries. Around 18 (46.15%) women were in the age group 20-24 years, 13 (33.33%) in the age group 25-29 years and 8 (20.51%) were in the teenage group. 23 (58.97%) women were between gravidity 2-4, 13 (33.33%) women were prim gravida and around 3 (7.69%) women were gravidity 5 or more. 18 (46.15%) women were nulliparous, 12 (30.76%) were multiparous and 9 (23.07%) were primipara. 17 (43.58 %) women of vascular mole were from Class IV socioeconomic status. No case was detected in Class I. Antecedent pregnancy as full term delivery in 18 (46.15%) women and as first trimester abortion in 5 (12.82%).

In complete molar pregnancy, 17 (50%) women had size/height of uterus larger than period of amenorrhea, 10 (29.41%) had size/height corresponding to period of amenorrhea while 7 (20.58%) 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
15059	39

Table 2: Age wise distribution of women.

Age in years	Number	Percentage
15-19	8	20.51
20-24	18	46.15
25-29	13	33.33
Total	39	100

In partial molar pregnancy, 3 (60%) women had height/size of uterus corresponding of amenorrhea and 2 (40%) had height/size of uterus less than period of amenorrhea. In complete mole, 21 (61.76%) women were having severe anaemia (Hb <7). While in partial mole, 3 (60%) women were having severe anaemia. The most common blood group combination of woman and her partner was O +ve and A +ve respectively followed by both having blood group O +ve.

Table 3: Clinical presentation of women.

Symptoms	Complete mole		Partial mole		No. of cases	Percentage
	Number	Percentage	Number	Percentage		
Amenorrhoea	27	79.41	3	60	30	76.92
Bleeding PV	23	67.64	2	40	25	64.10
Pain in Abdomen	26	76.47	4	80	30	76.92
Nausea & Vomiting	6	17.64	3	60	9	23.07
Cough	2	5.88	1	20	3	7.69
Passing Vesicles per vaginum	4	11.76	0	0	4	10.25
Total	88		13		101	

Complete molar pregnancy constituted 34 (87.17%) of the study group while 5 (12.82%) women had partial mole. The most common symptom of presentation in women with complete mole was amenorrhea in 27 (79.41%) women, pain in abdomen in 26 (76.47%) and bleeding P/V in 23 (67.64%). The most common symptom of presentation in women with partial mole was pain in abdomen in 4(80%) women, amenorrhea in 3 (60%) and bleeding P/V in 2 (40%).

Table 4: Gravida wise distribution of women.

Gravida	Number	Percentage
G1	13	33.33
G2-G4	23	58.97
>G5	3	7.69
Total	39	100

Table 5: Blood group wise distribution of women.

Woman's blood group	Partner's blood group	Number of cases
O +ve	A +ve	9
O +ve	O +ve	5
B +ve	O +ve	4
A +ve	O +ve	4
B +ve	AB +ve	3
B +ve	A +ve	3
O +ve	AB +ve	3
A +ve	B +ve	3
B +ve	B +ve	2
A +ve	A -ve	1
A +ve	A +ve	1
O +ve	B +ve	1
Total		39

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 synctiotrophoblastic and cytrotrophoblastic 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 Reossler 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, 39 women diagnosed as vesicular mole were studied between periods of October 2007 to May 2009. Out of them, 34 women were having complete mole and 5 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 2.5 per 1000 deliveries. In a series of 942 cases studied by Sekharan PK risk of developing hydatidiform 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 hydatidiform 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 39 women diagnosed as vesicular mole was done during the period of October 2007 to May 2009. Incidence of vesicular mole was 2.5 per 1000 deliveries. Around 46.15% women were in the age group 20-24 years followed by 33.33% in the age group of 25-29 year and 20.51% were in the teenage group. In molar pregnancy, 48.71% women belonged to urban area. In present series, 58.97% women were between gravidity 2-4, 33.33% women were primigravida and around 7.69% women were gravidity 5 or more. Around 46.15% women were nulliparous followed by 30.76% were multiparous. There was no significant association of serum β-hCG >1,00,000mlU/ml with raised TFTs.

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