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STUDY OF MOLAR PREGNANCY IN A TERTIARY CARE CENTER- A CASE SERIES

Ashwini Kashi [1*], Sheela SR [2]
[1] Department of Obstetrics and Gynecology, Sri Devraj URS Academy of Higher Education and Research, Kolar, Karnataka, India. Email ID: ashukashi26@gmail.com
[2] Department of Obstetrics and Gynecology, Sri Devraj URS Academy of Higher Education and Research, Kolar, Karnataka, India. Email ID: drsrsheela@gmail.com
*Corresponding Author Email: ashukashi26@gmail.com

Abstract
Background: Rate of molar pregnancy is higher in extremes of age. There is 1% & >10% incidence of molar pregnancy if previous history of 1&2 molar pregnancies respectively. Most patients present with heavy vaginal bleeding in first trimester. The role of clinical suspicion, early diagnosis, varied presentations, appropriate management and prompt follow up is being studied. .
Methods: The study is Retrospective-Observational study carried out in RL Jalappa Hospital (RLJH) ,Kolar from January2022-December2023 after taking inclusion criteria (a)Patients aged >18 years. b)Molar pregnancy confirmed by ultrasound)into consideration and risk factors, clinical outcome, management, complications and beta-hCG level follow-up were reviewed and outcomes obtained.
Results: 8 cases of molar pregnancy identified from Jan2022-Dec2023.1patient failed to follow up. 3patients diagnosed as partial-molar pregnancy and 5 cases as complete-molar pregnancy. 1 case of complete mole who underwent suction-evacuation was non-compliant for follow-up; she presented 1½months later with Choriocarcinoma with lung metastasis and treated with 4 cycles of chemotherapy.
Conclusions: Hydatidiform-mole is an obstetrical emergency affecting 1/500-1000 pregnancies. Extremes of age, history of molar pregnancy contribute as risk factors. Increased number of blood transfusions were noted. Suction-evacuation is choice of management irrespective of uterine size. Hysterectomy is done if family is complete. Strict serial beta-hCG monitoring facilitates early diagnosis and management. Proper counselling, patient compliance is key in achieving complete cure. Pregnancy can be planned once beta-hCG levels have been undetectable for 6 months.
Keywords: Molar pregnancy, beta-hCG, Suction-evacuation.

INTRODUCTION

Hydatidiform mole is an unregulated proliferation of placental trophoblast comprising 80% of GTD [1]. Complete mole involves absence of the embryo –has a diploid karyotype. Partial mole demonstrates presence of fetal parts-has a triploid karyotype. Trophoblast cells produce human chorionic gonadotropin (hCG) whose levels are needed for the management of trophoblastic diseases.

Rate of molar pregnancy is higher in women younger than 21 years and 7.5 times higher for women older than 35 years [2].There is a 1% and >10% greater incidence of molar pregnancy if past history of 1 molar pregnancy an 2 molar gestations respectively. Most patients present with heavy vaginal bleeding early in the first trimester, severe nausea and vomiting, and pregnancy-induced hypertension, often observed in the first trimester. Severe respiratory distress due to a pulmonary embolism of trophoblastic tissue is a rare presentation [3]. On clinical examination, uterine size does not correspond to dates. In a complete mole, the uterine size is greater than period of gestation whereas, in partial moles, it is smaller than period of gestation.Ultrasound is the gold standard diagnostic test for molar pregnancy which shows "snowstorm" or "bunch of grapes" pattern [4]. Quantitative beta hCG level is an important investigation. Surgical uterine evacuation is the choice of management irrespective of uterine size. Hysterectomy is done if family is complete.It reduces the risk of GTN, which is >50% in women older than 40 years, and reduces the need for subsequent chemotherapy. Labour induction/ hysterotomy increase maternal morbidity and increases the risk of postmolar GTN requiring chemotherapy.The invasive disease risk in a complete mole and partial mole is 15-20%, and 1-5% respectively.Cure rates are 80% to 90% with combination chemoradiation [5].

METHODS

Study Design:
Retrospective and Observational Study.

Source of Data: The medical records of molar pregnancies admitted to R. L Jalappa Hospital & Research Centre, Kolar will be reviewed and assessed as part of the study.

Objectives:
To study the risk factors, clinical presentation, management, complications and outcome of molar pregnancies.

Inclusion Criteria: Patients who meet the following criteria will be included:

- Patients over 18 years of age
- Molar pregnancy confirmed by ultrasound

Method of Collection: The data from the medical records will be entered into a proforma for the study. It includes the demographic and patient identification information such as name, age, and information about admission such as medical diagnosis, date of admission, and length of hospital stay and clinical features, investigations, management, complications and follow up with beta hCG levels.

Method of Assessment: All the case sheets of the women who are diagnosed with molar pregnancy at R.L Jalappa Hospital and Research Centre under the aegis of SDUAHER from January 2022 to December 2023 will be reviewed.

RESULTS

8 cases of molar pregnancy were identified from Jan 2022 to December 2023.One patient was excluded as she failed to follow up. 3 patients were diagnosed as partial molar pregnancy and 5 were diagnosed as complete molar pregnancy. 1 case of partial mole underwent suction and evacuation followed by one cycle of Inj. Methotrexate while the other two were treated by suction and evacuation alone. 4 cases of complete molar pregnancy underwent suction and evacuation out of which one case was non-compliant for follow up; she presented 1 ½ months later with Choriocarcinoma with lung metastasis and was treated with 4 cycles of chemotherapy. One case of complete molar pregnancy was lost to follow up.

Case 1: A 21-year-old G2A1 with 2 months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding per vaginum since 2 days, changed 1-2 pads per day. History of induced abortion 1 year ago. On examination, vitals were stable. Per abdomen was soft and non-tender and bleeding associated with clots was noted on per speculum examination. On ultrasound examination, uterus was bulky with heterogenously hyperechoic collection of grape like vesicles involving complete uterus with snow storm appearance suggestive of molar pregnancy. Beta hCG was reported as 18124mIU/ml on admission. She underwent suction evacuation under General anaesthesia - Grape like vesicular mole evacuated. Patient was started on Inj. Methotrexate 78.5mg on Alternate days (on DAY 1,3 ,5 ,7) and Inj Folinic Acid 50mg in 100ml NS(on DAY 2, 4,6,8) Serial Beta HCG monitoring done and reduced to 1400mIU/ml at the end of 10 days. Histopathogical examination reported as partial molar pregnancy. At the end of 4 weeks, beta hCG value dropped to <2 mIU/ml. Patient was advised for regular follow up and contraception.

Case 2: A 23years old G2P1L1 with 2 months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding per vagina since 15 days,changes 3-4 pads per day associated with pain abdomen. On examination, pallor present with tachycardia of 102bpm.SpO2 of 98%on room air. Per abdomen was non tender. Uterus corresponding to 16 weeks size, doughy in consistency. Hb was 6.7g/dl and snowstorm appearance occupying the uterine cavity was noted on pelvic ultrasound. Beta hCG was reported as 13002mIU/ml on admission. Patient underwent suction and evacuation -.150ml of collection of grape like vesicles and blood evacuated. 2 pints PRBC was transfused following which Hb was 9.6g/dl. Histopathology confirmed the diagnosis of molar pregnancy. Beta hCG serial monitoring was done which came down to nil at the end of 3 weeks. Patient was advised for regular follow up and contraception.

Case 3: A 25 years old G2P1L1 with history of 2 ½ months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding PV since 2 days with passage of clots associated with pain abdomen. On examination, pallor was present, vitals were stable. Per abdomen was Uterus corresponding to 14-16 weeks size. Per speculum examination showed minimal bleeding through the os. Hb was 8.2 g/dl for which she received a PRBC transfusion. Ultrasound pelvis showed grape like vesicles with snowstorm appearance suggestive of complete molar pregnancy. Beta hCG was 54000 mIU/ml. She underwent suction evacuation -200cc collection of grapes like vesicles evacuated. Histopathology was reported as complete mole. Serial beta hCG monitoring and regular follow up was advised but the patient was non-compliant. She presented to the casualty 1 ½ months later with heavy bleeding per vaginum since 2days, associated with passage of clots, changing 3-4 pads per day with pain abdomen with history of fever and breathlessness since 1 day. On examination, pallor present with tachycardia of 110bpm, Blood pressure 90/60mmHg, SpO2 of 96% on room air, temperature 101 F. Per abdomen was soft, non-tender. Per speculum examination showed active bleeding through the os with clots. Hb was 3.5g/dl for which she received 4 pints PRBC transfusion. Beta hCG was >30,000mIU/ml. Ultrasound pelvis showed retained products of conception with molar tissue .CECT thorax showed Multiple enhancing pulmonary and subpleural nodules suggestive of malignancy /metastasis. She was diagnosed with Choriocarcinoma and confirmed by histopathological examination. She received 4 cycles of chemotherapy with INJ METHOTREXATE and INJ FOLINIC ACID following which Beta hCG was <2mIU/ml. Patient was advised for strict follow up with serial beta hCG and contraception.

Case 4: A 24-year-old G3P2L2 with 3months of amenorrhea with previous 2 LSCS presented to RL Jalappa hospital with complaints of pain abdomen and bleeding per vaginum since 4 days, changed 1-2 pads per day. On examination, vitals were stable. Per abdomen was soft. Minimal bleeding was noted through os on per speculum examination. Ultrasound pevis showed features of partial mole. Beta HCG on admission was 1221.7mIU/ml. Patient underwent suction and evacuation and 50cc products of conception was evacuated. Histopathological examination reported as partial molar pregnancy. Beta HCG post 1 week was 23.2mIU/ml. Serial beta hCG was monitored, regular follow up and tubectomy was advised.

Case 5: A 24 year old Primigravida with 3 months of amenorrhea presented to RL Jalappa hospital with scan report showing features suggestive of molar pregnancy and complaints of vomiting since 10 days. On examination, vitals stable. Per abdomen was soft, non-tender and no bleeding on per speculum examination. Beta hCG on admission was 1887mIU/ml. Ultrasound pelvis showed features of complete mole. She underwent suction evacuation – products of 25cc were evacuated. Serial beta hCG was monitored. Beta hCG on day 7 was 5440 mIU/ml. Regular follow up and contraception was advised.

Case 6: A 23 year old G2P1L1 with 1 ½ months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding per vagina since 5 days, changes 2-3 pads per day. On examination, vitals stable. Per abdomen was soft, non-tender and minimal bleeding through os on per speculum examination. Ultrasound pelvis showed features of complete mole-snow storm

appearance. Beta hCG on admission was 13457mIU/ml. She underwent suction evacuation – products of 20cc were evacuated. Histopathological examination showed features suggestive of complete mole. Serial beta hCG monitoring was done. Beta hCG on day 7 was 540 mIU/ml. Regular follow up and contraception was advised.

Case 7: A 20-year-old G2A1 with 2 months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding per vaginum since 3 days, changed 1-2 pads per day. History of spontaneous abortion 2 years ago. On examination, vitals were stable. Per abdomen was soft and non-tender and minimal bleeding associated with clots on per speculum examination. On ultrasound examination heterogeneously hyperechoic collection of grape like vesicles with parts of fetus noted suggestive of partial mole. Beta hCG on admission was 18526mIU/ml. She underwent suction and evacuation of products of 30cc and sent for histopathological examnation which was confirmed as partial molar pregnancy. Beta hCG on day 7 was 2870mIU/ml following which it decreased to <2mIU/ml at the end of 4 weeks. Serial beta hCG monitoring was done and contraception and regular follow up was advised.

Case 8: A 25-year-old G2P1L0 with 2 months of amenorrhea presented to RL Jalappa hospital with complaints of bleeding per vaginum since 4 days, changed 3-4 pads per day.
On examination, pallor present with tachycardia of 112bpm. Per abdomen was soft and non-tender and active bleeding associated with clots on per speculum examination. On ultrasound examination grape like vesicles noted suggestive of complete mole. Beta hCG on admission was 23988 mIU/ml. Hb was 5.6g/dl. Patient was not willing for admission and failed to follow up.

DISCUSSION

Hydatidiform mole is an obstetrical emergency affecting 1 per 500-1000 pregnancies. Extremes of age, ethnicity, and history of molar pregnancy contribute as risk factors. Bleeding per vagina is the most common presenting symptom. There is increased need for blood transfusions noted [6].
Early diagnosis of molar pregnancy by ultrasound has decreased morbidity from uterine evacuation. Histology helps in the diagnostic path. In a study by Descargues P et al., out of 7761 patients who were studied whose beta-hCG levels returned to normal post molar pregnancy, 20 (0.26%) developed GTN. None of the patients with histologically proven partial mole advanced to GTN [7].
Suction and evacuation are the mainstay of treatment. Follow-up with human chorionic gonadotropin (hCG) is essential for early diagnosis of gestational trophoblastic neoplasia (GTN).Prophylactic administration of methotrexate immediately following suction evacuation reduces the incidence of postmolar GTN to 3%–8%. Biswas, Jhuma et al. concluded that a single-dose methotrexate normalized beta-hCG levels in most women within 12 weeks and in 38% women within 8 weeks [8]. Risk stratification of GTN and treatment as per protocol (low risk- single agent chemotherapy- methotrexate or Actinomycin D) is mandate.
Strict serial beta hCG monitoring every 1–2 weeks facilitates early diagnosis and management of postmolar GTN. Proper counselling and patient compliance is the main key in achieveing complete cure. Pregnancy can be planned once beta hCG levels have been undetectable for 6 months [9].

CONCLUSION

Hydatidiform-mole is an obstetrical emergency affecting 1/500-1000 pregnancies. Extremes of age, history of molar pregnancy contribute as risk factors. Increased number of blood transfusions were noted. Suction-evacuation is choice of management irrespective of uterine size. Hysterectomy is done if family is complete. Strict serial beta-hCG monitoring facilitates early diagnosis and management. Proper counselling, patient compliance is key in achieving complete cure. Pregnancy can be planned once beta-hCG levels have been undetectable for 6 months.

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