



A Complete Hydatidiform Molar Pregnancy with Ballantyne's Syndrome and Gestational Trophoblastic Neoplasia

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Introduction

We present a case of a complete hydatidiform molar pregnancy that was complicated by Ballantyne's syndrome, with development of congestive heart failure and choriocarcinoma in the post pregnancy termination period.

Objective

This is a rare case, with a paucity of published evidence. We detail the clinical, sonographic features of the pregnancy, salient considerations for management, and a review of the current evidence base.

Patient Background

- 37 year-old women
- G5P3⁺¹ → 1 x early pregnancy loss; 1 x 30 week loss (Fatal Fetal Anomaly- Pentology of Cantrell); 2 x Normal Vaginal Deliveries
- No medical/surgical history. Non-smoker. NKDA. BMI 45.1
- Rh Negative. Serology Negative. Rubella Immune.



Figure 1- Bilateral Ovarian Cysts with heterogenous mass in endometrium. Image taken post TOP

Case History

7⁺⁰ weeks gestation: Presented with Hyperemesis Gravidarum (HEG) and deranged thyroid function tests (TFTs).

9⁺¹ weeks gestation: Viable intrauterine pregnancy (VIUP) with an echogenic mass with multiple cystic areas adjacent to the sac was seen on ultrasound scan. A working diagnosis of a hydatidiform molar pregnancy was made.

12⁺⁰ weeks gestation: Worsening dyspnoea and hypertension with hypoalbuminemia and worsening TFTs and LFTs. NIPT was normal with karyotype XX, however, showing high fetal fraction of 58%. Between 7-13 weeks the fetus measured appropriate for dates so the working diagnosis went from partial mole with a Triploid fetus to a twin gestation of a normal pregnancy with a choriocarcinoma in the second sac.

13⁺⁰ weeks gestation: Severe hyperemesis and significant peripheral oedema. Ultrasound scan showed a placental mass that was 4 times the size of the fetus and evidence of fetal hydrops. This prompted a decision in conjunction with the patient, for a compassionate termination of pregnancy (TOP). The fetus after delivery was noted to have Gastrochiasis. The fetal karyotype from the placental tissue was 46 XX.

Post TOP: Unstable hypertension, management with 2 different anti-hypertensives. Developed radiologically proven congestive heart failure (cardiomyopathy), managed with ACE-Inhibitors and diuretics. B-HCG levels had risen sharply from 64,512 to 89,023. Referred to national gestational trophoblastic disease centre.

CT TAP: Evidence of a gross uterine tumour measuring 9 cm in the lower segment and cervix, with a FIGO scoring of 6 (see Figure 1). She is currently on Methotrexate monotherapy and continues to be followed up with our oncology team (see Figure 2- post chemotherapy).



Figure 2- Post Chemotherapy CT. Resolution of Bilateral Ovarian Cysts with improvement, yet persistence of heterogenous mass in endometrium.

Discussion

Ballantyne (or Mirror) Syndrome is a rare condition with fewer than 120 cases described in the literature.^{1, 2} It is a condition hallmarked by maternal oedema and ultrasound findings of placentomegaly and fetal hydrops.¹ It is associated with a substantial increase in fetal mortality and maternal morbidity.

Conclusion

This is a rare entity associated with increased maternal (antenatal and postpartum) and fetal complications. Furthermore, the limited evidence base that is the hallmark of rare conditions, makes clinical management challenging. We recommend a specialist, and multi-disciplinary approach, and for sharing clinical experiences when such cases are encountered.

References

1. Mogharbel H, Hunt J, D'Souza R, Hobson SR. Clinical presentation and maternal-fetal outcomes of Mirror Syndrome: A case series of 10 affected pregnancies. *Obstetric Medicine*. 2022;15(3):190-194. doi:[10.1177/1753495X211058043](https://doi.org/10.1177/1753495X211058043)
2. Braun T, Brauer M, Fuchs I, Czernik C, Dudenhausen JW, Henrich W, Sarioglu N. Mirror syndrome: a systematic review of fetal associated conditions, maternal presentation and perinatal outcome. *Fetal Diagn Ther*. 2010;27(4):191-203. doi: 10.1159/000305096. Epub 2010 Mar 27. PMID: 20357423.