

# Ruptured Ectopic Molar Pregnancy and Ruptured Uterine Fibroid: A Challenging Rare Diagnosis



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Transformation: Making Waves

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## Introduction

**Ectopic pregnancies (EP)** are a fertilized ovum that has implanted outside of the uterus.

- >95% occur in the fallopian tube.
- Incidence of 1-2 events in every 100 pregnancies.
- Ruptured ectopic pregnancies cause almost 6% of maternal deaths. [1-3]

**Molar pregnancies (MP)** involves placental tissue growing abnormally with an absent fertilised ovum (complete hydatidiform mole) or an abnormally fertilised ovum (partial hydatidiform mole).

- Incidence of 1-2 events in every 1,000 pregnancies.
- Gestational trophoblastic neoplasia (GTN) evolves in up to 25% of complete hydatidiform mole cases without treatment.
- Incidence of ectopic MP is even more rare with 1 event in 20,000 to 100,000. [4-6]

**Uterine fibroids or leiomyomas** are common benign smooth muscle tumours.

- Incidence of up to 70% in Caucasian women.
- Tumours are usually estrogen and progesterone receptor positive.
- Pregnancy related complications include haemorrhage, infarction and hyalinization (red degeneration and apoplectic change).
- Uterine fibroid rupture is rare with less than 200 case reports existing in current literature. [7-11]

## Case History

A 33 year old primiparous female of ~4/40 gestation presented to the Emergency Department (ED) with a 12 hour history of right lower abdominal cramping and pink light vaginal discharge that had become thick and brown. She had no other relevant past medical history.

## Management

### Initial Examination and Bedside Ultrasound Scan (USS)

- Haemodynamically stable
- Palpable mass in the infraumbilical region
- Mild tenderness on palpation of the lower abdomen
- USS showed no intra-uterine pregnancy and a large cystic structure on the left ovary

### Investigations

- bhCG 15,156 IU/mL
- WCC 14.6 x 10<sup>9</sup>/L
- Neutrophils 12.6 x 10<sup>9</sup>/L
- Haemoglobin (Hb) 12.5 g/dl
- Urinalysis – leukocytes present
- CA 125 367 kU/L; CEA, CA19.9, AFP normal

### Formal Transvaginal USS

1. Empty uterus
2. Right heterogenous adnexal mass (3cm) adjacent to the right ovary with peripheral vascularity
3. Well circumscribed anechoic mass (11cm) adjacent to the right aspect of the uterus with thick walled vascularity suggestive of a placental mass

### Treatment

The patient became haemodynamically unstable on serial review. She underwent an emergency diagnostic laparoscopy which identified a 3.5L haemoperitoneum, a ruptured ectopic and ruptured fundal fibroid. The case was converted to a laparotomy and a right salpingectomy and myomectomy was completed. The estimated blood loss was 3.7L and her Hb dropped to 6.8 g/dl intraoperatively. She was resuscitated as per local protocols.

### Outcome and Follow up

- The post op recovery was uneventful and histopathology confirmed an ectopic molar pregnancy and benign leiomyoma. Gynae-oncology follow up was completed.
- bhCG D0 post op – 4,871 IU/mL; D11 post op – 140 IU/mL
- No sign of metastatic disease on chest xray and CT abdomen and pelvis

## Histopathology



Figure 1. A) Right fallopian tube (70mm) with dilated ampulla (25mm). B) Benign leiomyoma within uterine wall and uterine serosa with focal areas of haemorrhage (75x70x30mm; weight - 90g). C) Cut surfaces of the benign leiomyoma.

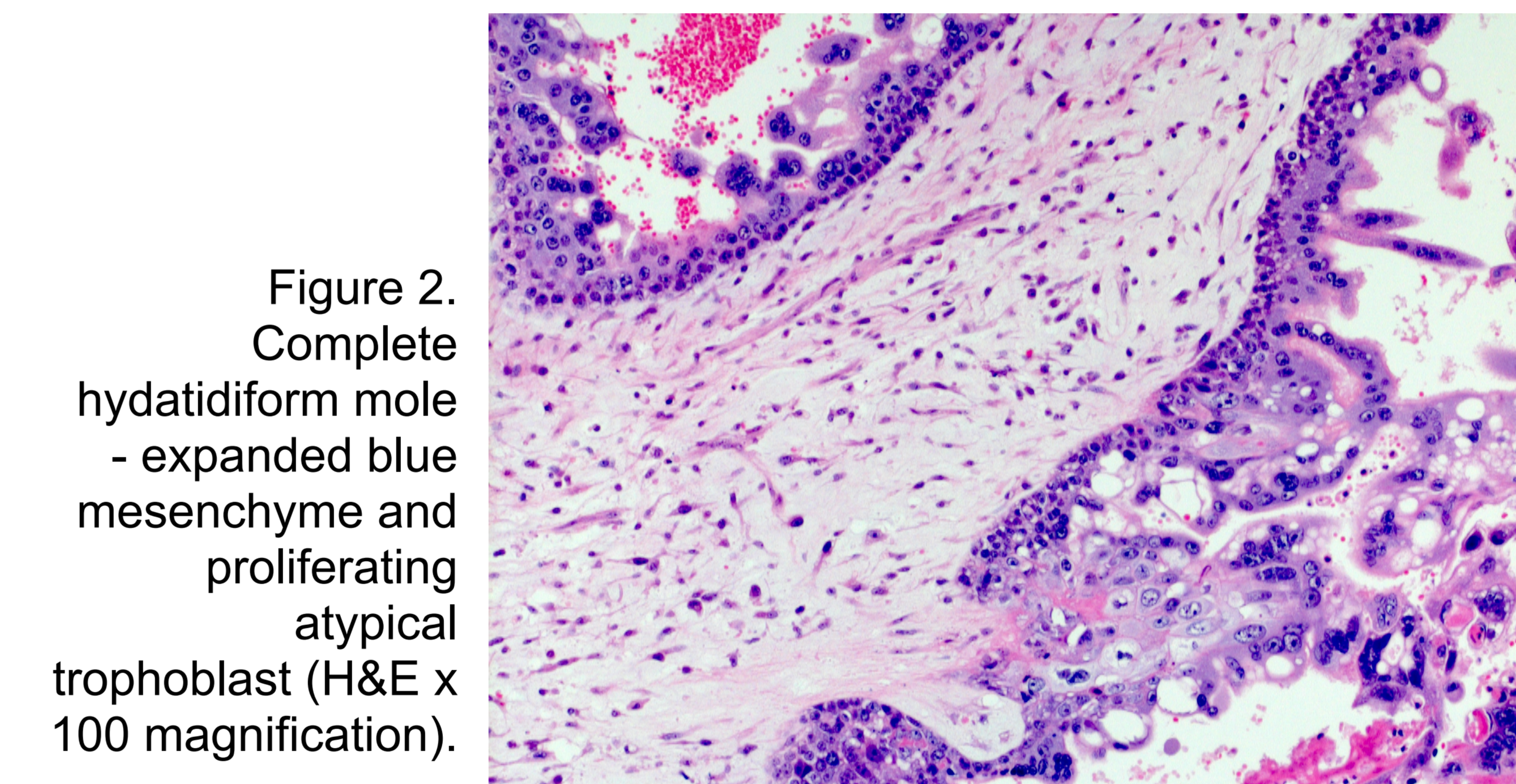


Figure 2. Complete hydatidiform mole - expanded blue mesenchyme and proliferating atypical trophoblast (H&E x 100 magnification).

## Discussion & Conclusion

1. We present a unique case of a ruptured ectopic molar pregnancy and a ruptured uterine fibroid.
2. Pre operative imaging was not able to diagnostically identify the adnexal masses.
3. Diagnostic laparoscopy led to definitive surgical treatment.
4. Histopathology is key in identifying suspected ectopic and molar pregnancies.
5. Increased risks of future ectopic pregnancy (~15%), future molar pregnancy (~1.5%), and uterine fibroid recurrence (47%) for the patient. [12-15]
6. Treatment of GTN is usually curative with highly effective adjuvant chemotherapy; hence, GTN monitoring post molar pregnancy is important. [16]

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