

# Gestational Choriocarcinoma arising from an Ovarian Ectopic

*S.Dauleh, J.Karuppaswamy, R.Khanna*

## Objective:

- Ovarian pregnancy is a rare form of non-tubal pregnancy with an incidence of 0.5%-1% of all ectopic gestations<sup>1</sup>.
- This case is exceptionally distinctive due to the fact an aggressive tumour in the form of gestational choriocarcinoma has arisen from an ovarian ectopic pregnancy.

## Case Report:

- A fit and healthy 30-year-old female, presented to the Early Pregnancy Unit with lower abdominal pain and back ache with a positive pregnancy test.
- Transvaginal ultrasound scan demonstrated a normal sized uterus with the coil in situ.
- A large 10cm mass with mixed echoes was visualised, in the right adnexa adjacent to the ovary. No fetal pole seen.
- Diagnosed as ruptured ovarian ectopic with pelvic haematoma she was scheduled for urgent surgery.
- At laparotomy, the mass and ovary were removed intact. Histopathological examination confirmed gestational choriocarcinoma arising from the ovarian ectopic pregnancy.
- CT scan revealed further metastases and subsequently she required chemotherapy.
- She returns to our Early Pregnancy Unit 3 years later with a positive pregnancy test, rising Bhcg and on ultrasound scan a viable intra-uterine pregnancy confirmed.

## Discussion:

- The overall incidence of gestational choriocarcinoma is estimated at 1 case per 50,000 pregnancies and aside from increasing maternal age does not appear to have any other significant risk factors.
- IUS prevents intra-uterine implantation in 99.5%, if implantation occurs, 95% of cases occur in the fallopian tube and rarely in other places such as ovary. Intriguingly, her BHcg at first presentation was 41,000 and even in these ‘early’ choriocarcinomas approximately 50% are already associated with metastatic spread.
- Fortunately, with modern chemotherapy the cure rate for women with these rare choriocarcinomas approaches 95%, risk of re-occurrence is low in future pregnancies<sup>2</sup>.



CT demonstrating multiple metastases in the liver, pancreas and spleen

## FIGO scoring system for GTD

| Score                                | 0                | 1                                | 2                                | 4                | Patient score |
|--------------------------------------|------------------|----------------------------------|----------------------------------|------------------|---------------|
| Age                                  | ≤39              | ≥40                              |                                  |                  | 0             |
| Antecedent Pregnancy                 | Mole             | Abortion                         | Term                             |                  | 2             |
| Interval from index pregnancy        | <4 months        | 4-6 months                       | 7-12 months                      | >12 months       | 2             |
| Pre-treatment serum hCG level (IU/L) | <10 <sup>3</sup> | 10 <sup>3</sup> –10 <sup>4</sup> | 10 <sup>4</sup> –10 <sup>5</sup> | >10 <sup>5</sup> | 2             |
| Largest tumor size including uterus  | <3cm             | 3-5cm                            | >5cm                             |                  | 2             |
| Site of metastasis                   | Lung             | Spleen, kidney                   | GI                               | Brain, liver     | 4             |
| Number of metastases                 | none             | 1–4                              | 5–8                              | >8               | 1             |
| Prior failed chemotherpay drugs      | –                | –                                | 1                                | ≥2               | 0             |
| Total                                |                  |                                  |                                  |                  | 13            |

|           |                                                                                                              |
|-----------|--------------------------------------------------------------------------------------------------------------|
| Stage I   | Disease confined to the uterus                                                                               |
| Stage II  | GTN extends outside of the uterus, but is limited to the genital structures (adnexa, vagina, broad ligament) |
| Stage III | GTN extends to the lungs, with or without known genital tract involvement                                    |
| Stage IV  | All other metastatic sites                                                                                   |

Patient score

- LOW RISK  $\leq 6$  (single agent therapy-IM methotrexate)
- HIGH RISK  $\geq 7$  (Multi-agent chemotherapy-Etoposide, Methotrexate, Actinomycin, Cisplatin)

## Conclusion:

- Patients who are found to have a large adnexal mass with an elevated Bhcg, who classically present with symptoms of an ectopic should be fully counselled of the possibility of oophorectomy and Choriocarcinoma should be considered in the differential diagnosis.

### References:

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- Jiao L, Ghorani E, Sebire NJ, Seckl MJ. Intraplacental choriocarcinoma: systematic review and management guidance. Gynecol Oncol. 2016;141:624–31.