

# Rare Germ Cell Tumours

*Patient Information Series – What you should know, what you should ask.*

## **What are embryonal carcinomas, non-gestational choriocarcinomas and malignant mixed germ cell tumours?**

Ovarian embryonal carcinomas, non-gestational choriocarcinomas and malignant mixed germ cell tumours are rare subtypes of non-epithelial germ cell tumours and behave as malignant. These neoplasms are typically diagnosed in young women and are usually unilateral.

## **Which are clinical symptoms?**

The most frequent clinical symptoms are abdominal pain related to the rapid tumour growth and palpable abdominal mass. Other symptoms may be menstrual abnormalities and endocrine disorders like precocious puberty, particularly in women with non-gestational choriocarcinoma or embryonal carcinoma.

## **Should I have more tests done?**

Depending on the type of germ cell tumour, different biochemical markers may be elevated in your blood. Mixed malignant germ cell tumours may secrete substances into your bloodstream such as beta-hCG (if they contain choriocarcinoma cells), alpha-fetoprotein (AFP) (if they contain yolk sac germ cells) or lactate dehydrogenase (LDH) (if they contain dysgerminoma cells). Typically, non-gestational choriocarcinomas secrete beta-hCG. Embryonal carcinomas may secrete both AFP and beta-hCG.

In expert hands, a transvaginal and transabdominal ultrasound evaluation could be useful as first imaging exam. In addition, a total body Computed Tomography (CT) scan is usually performed to search any signs of tumour spread before surgery.

## **Which is the best treatment?**

Most malignant germ cell tumours are diagnosed at an early stage and are treated with a combination of surgery and chemotherapy. For young women who want to preserve their fertility and in case of early-stage disease (tumour localised in one ovary), unilateral salpingo-oophorectomy with preservation of the contralateral ovary and the uterus followed by chemotherapy is the standard treatment. Surgery should be performed in an oncological referral center.

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## **What is the prognosis?**

The prognosis depends on the many factors including tumour stage, tumour markers, histology and grade, and residual disease after surgery. Data on survival of ovarian embryonal carcinomas, non-gestational choriocarcinomas and mixed malignant germ cell tumours are limited due to the rarity of these tumours.

## **What other questions should I ask?**

- Is the tumour limited to my ovary or is it advanced?
- What is the best treatment for my condition?
- Will I be able to get pregnant after treatment?
- What are the problems that can happen with the treatment?
- Where is the best place for me to receive treatments?
- Which follow-up will I need after treatment?

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