

# The Case of EL

## Cancer Disguised as Pregnancy of Unknown Location

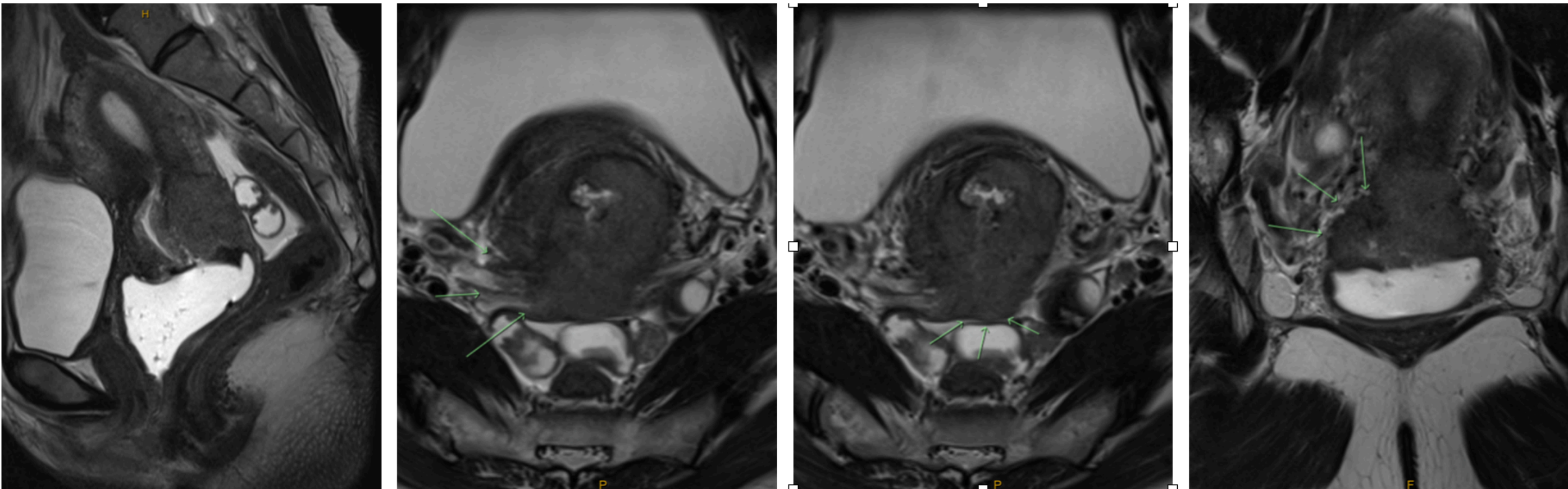
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**Background**  
Beta human chorionic gonadotropin ( $\beta$ -hCG) is a placental protein typically used as a sensitive marker for the presence of pregnancy, trophoblastic disease or ovarian germ cell tumours. Ectopic secretion of  $\beta$ -hCG by epithelial tumors, including breast, endometrial, cervix, prostate, lung, colon, oral/facial tissue and stomach, is a rare but recognised phenomenon.<sup>1</sup>

**Aims**  
Outline a case of cervical squamous cell carcinoma (SCC) presenting with a persistently low positive serum beta-hCG level

**Case**  
EL, a 45 year old female, otherwise well, referred to the Early Pregnancy Assessment Service (EPAS) with a low positive  $\beta$ -hCG in the context of investigation for prolonged uterine bleeding. There was no intrauterine or ectopic pregnancy demonstrated on ultrasound. The clinical impression was that of a pregnancy of unknown location (PUL) with a plan for serial  $\beta$ -hCGs. Serum  $\beta$ -hCG remained persistently low positive, thus the patient was treated with methotrexate for a presumed small ectopic pregnancy. When the  $\beta$ -hCG remained positive despite methotrexate treatment, EL was referred for further investigation and discussion with Gynae-oncology.

**Results**  
Endometrial currettings returned positive for squamous carcinoma (SCC) of cervical origin (P16 positive). EL was then referred to Gynaeoncology who confirmed insitu and invasive SCC consistent with primary cervical origin on colposcopy. Subsequent staging MRI and PET imaging and examination under anaesthesia diagnosed stage 3 cervical carcinoma with parametrical invasion and avid pelvic nodes.



Locally infiltrative cervical carcinoma with parametrial involvement and locoregional lymphadenopathy. Indeterminate appearances of the small bowel loops within the rectouterine pouch. Areas of spasm or early serosal disease.

bHCG Results:	
12/6	13
14/6	12
21/6	30
23/6	14
30/6	16
7/7	16
22/7	13
29/7	15
7/8	15

Persistent low level serum bHCG

**Discussion**  
To prevent a delay in the diagnosis and treatment of malignancy in young women, ectopic secretion of  $\beta$ -hCG from tumour cells should be a consideration in a patient who has persistent stable detectable serum  $\beta$ -hCG but no clinical evidence of pregnancy.

**References**  
1. Iles R. K. (2007). Ectopic hCGbeta expression by epithelial cancer: malignant behaviour, metastasis and inhibition of tumor cell apoptosis. Molecular and cellular endocrinology, 260-262, 264–270. <https://doi.org/10.1016/j.mce.2006.02.019>