

A Case Report on persistent elevated beta-HCG resistant to methotrexate

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Background

Elevated beta Human chorionic gonadotropin (bHCG) is strongly associated with pregnancy. However, this case report document a diagnostic challenge in a patient with persistent elevated bHCG levels.

Case History

A 28 year old patient was referred to our early pregnancy assessment service (EPAS) for management of elevated bHCG (139 IU/L) associated with pregnancy of unknown location and gestation on background of intradermal contraception use since 2016.

The diagnosis of ectopic pregnancy was made with the visualisation of a 2cmx2cm mass in Pouch of Douglas with associated probe tenderness but an empty uterus with endometrial thickness of 1cm, She was consented for medical management with methotrexate. Her bHCG levels showed suboptimal response to methotrexate which we proceeded to perform a laparoscopy & dilatation and curettage of uterus with removal of her intradermal hormonal implant. Intra-operative findings excluded an ectopic pregnancy. However, histopathology of uterine curetting was inconclusive for gestational trophoblastic disease (GTD). Her bHCG level began rising post-operatively, hence she was given a second dose of methotrexate. Her bHCG level dropped to a level of 26 IU/L then showed slow upward trend with weekly measurements.

She has been referred to the gynaecologist at our tertiary centre for further management for her persistent elevated bHCG. Further investigations showed no evidence of heterophilic antibodies in blood or gestational trophoblastic disease on repeat D&C or extrauterine disease on CT abdomen/pelvis. She was found to have a small pituitary microadenoma on MRI brain. At present, her bHCG level has plateau around 67-88 IU/. Further management will be guided by the pattern of bHCG level.

Discussion

Although pregnancy is the most likely cause for elevated bHCG, other causes including false positive test results, neoplastic processes such as GTD and pituitary production of bHCG should be considered to avoid harmful interventions, as seen in our case report.