Management of a Patient with Positive Pregnancy Testing after Therapeutic Abortion

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**Introduction**: Human Chorionic gonadotropin (HCG) levels are obtained in many institutions preoperatively to assess the status of pregnancy prior to the administration of anesthetics or therapy that could be potentially harmful to an unborn fetus. Evaluating the results can be challenging in some cases. We report a case of a positive test result following a therapeutic abortion that had been performed three weeks prior.

**Case Report**: A 21-year-old female with a history of Crohn’s disease presented for an upper endoscopy and colonoscopy. A qualitative urine HCG was performed, found to be positive and repeated. When the test had been confirmed the positive results were shared with the patient. She stated that she had undergone a therapeutic abortion three weeks ago for what she believed to be an eight-week gestation. The gynecologist who had performed the abortion was contacted. She was confident that it was a complete abortion. A member of our adolescent gynecology department was contacted who felt that without an ultrasound we could not be 100% confident that this patient did not have retained products of conception, a new pregnancy or elevated HCG levels secondary to the proximity of the abortion. The elective case was postponed and the patient was advised to follow up with her gynecologist for ultrasound and repeat HCG levels prior to the start of her bowel prep. On return to the institution, 24 days later, she reported that an ultrasound had been performed which did not reveal retained products of conception and that a serum HCG that had been performed one day prior was 11mIU/ml and a repeat was 13mIU/ml. Her urine HCG on the day of surgery was negative.

**Discussion**: The rate of unintended pregnancy in the adolescent female remains quite high (1). Teenage pregnancies represent a large and significant proportion of pregnancies in the United States. Many of these pregnancies are undisclosed because teens are reluctant to volunteer this information. Assessment of pregnancy status in the specific subgroup of patients is performed to minimize the possibility of harm to a pregnancy. We report of this case of a female with a positive urine HCG, post first trimester abortion, to demonstrate the difficulty with interpretation. The mean elimination time and disappearance of maternal HCG in women post therapeutic abortion of an eight-week gestation is 30 days (2). It is recommended that contraception should be instituted two weeks following pregnancy termination. This patient indicated that she had been sexually active since her abortion. The caregivers could not be sure that she had not incurred another pregnancy and the decision was made to reschedule the procedure. Before returning for the procedure she had a negative ultrasound, a low serum HCG level and a negative urine HCG. The case proceeded after the patient was apprised of the potential risk of the anesthetic agents on a developing fetus. The patient denied the possibility of pregnancy.

**Conclusion**: This is acceptable in the adult patient but becomes very controversial in the minor patients. In the face of a new pregnancy with a serum HCG levels > 5mIU/ml there should have been a positive urine HCG. If this had been proceeding probably would not be prudent until a serum HCG level of 0 had been obtained. The evaluation of HCG levels post therapeutic abortions are clear only if the exact age to the gestation is known at the time of the abortion. This is an important consideration before rescheduling the procedure as the elimination time of the maternal HCG could be prolonged.