Human Reproduction, p. 1, 2017
doi:10.1093/humrep/dex332

human reproduction

LETTER TO THE EDITOR

False positive blood hCG test following Corifollitropin alfa injection

Sir,

Corifollitropin alfa (Elonva®) is the first long-acting hybrid molecule with sustained follicle-stimulating activity developed for the induction of multi-follicular growth. The peptide is composed of the α subunit of human FSH and a hybrid β subunit formed by fusion of the human chorionic gonadotropin β subunit carboxy terminal peptide with the β subunit of human FSH.

Five days after receiving 150 μg Corifollitropin alfa, a patient had a blood test to assess ovarian response. Incidentally, blood hCG was also measured, and was 25 IU/l. Two days later hCG blood level was 17, excluding any abnormal hCG production, primarily ectopic pregnancy. A most plausible explanation was that the hCG kit detected the hCG component of the hybrid molecule. To verify this assumption, we measured blood hCG in 10 consecutive patients also treated with 150 μg Corifollitropin alfa, and in all cases hCG was detected, ranging from 25 IU/L, if taken 5 days after injection, to around 10 IU/l if taken 2 days later.

All hCG tests were performed using ADVIA Centaur®-XP immunoassay system by Siemens Medical Solutions Diagnostics.

The above findings were conveyed to the manufacturer, MSD, who offered the following response: 'No cases of the below have been reported. Additionally, a search of the published medical literature did not identify any relevant studies.' Therefore, to the best of our knowledge, this is the first publication describing false positive blood pregnancy test following Corifollitropin alfa injection.

Positive hCG test during ovarian stimulation is a cause for concern, and for measures to rule out pathology, primarily ectopic pregnancy. However, if the patient was treated with Corifollitropin alfa, positive hCG test most probably reflects the hCG component of the hybrid molecule.

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