

lutinizing hormone-releasing hormone agonist. They reported hepatotoxicity only in 4 patients with an incidence of 0.36%. In fact in 1,091 patients only 2 patients (0.18%) developed clinical signs of liver toxicity, and 2 others had elevated levels of liver enzymes.

In our study (1) although the number of patients is limited, we did not detect any liver abnormalities at the end of 9 months of treatment. Similarly, Cusan et al. (3) reported no liver toxicity in 28 patients who were treated with flutamide for 9 months. Marcondes et al. (4) treated 9 women for 3 months and did not detect hepatotoxicity in any of the patients. In review of the literature there is only one report of flutamide (500 mg/day)-related liver toxicity for the treatment of hirsutism. As a conclusion, flutamide has a very low incidence (0.36%) of liver toxicity and even lower incidence with lower dosage of treatment in hirsutism could be expected. And yet we consider to inform the patients for potential hepatotoxicity and warn them to report any signs and symptoms of liver injury to physicians as a part of routine practice.

We also recommend measurement of liver enzymes especially blood aminotransferase, before and at 2 and 4 weeks of treatment to avoid low potential risk of clinically significant liver toxicity. Nevertheless flutamide is still an effective and reasonably safe alternative in the treatment of hirsutism.

Mithat Erenus M.D.
Marmara University
School of Medicine
Department of Obstetrics and Gynecology
Division of Reproductive Endocrinology
and Infertility
Istanbul, Turkey
June 6, 1994

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Predictive Value of Serum Progesterone Levels for Pregnancy Outcome?

To the Editor:

I read with interest the manuscript by Long et al. (1). They previously found that by using a relative operating characteristic (ROC) curve analysis that P concentrations between 10 and 13 ng/mL optimally predict abnormal pregnancies after spontaneous ovulation (2). The level was considered to be a further refinement for the empirical discerning level of 15 ng/mL used by Yeko et al. (3) to predict abnormal pregnancies. Of course their data is based on the Diagnostic Products Corp. Los Angeles, Calif. RIA for P and each infertility center must define its own specific values especially, when nonisotopic assays are used.

The authors' findings that these lower discriminatory levels of P are not able to predict abnormal pregnancies in clomiphene citrate (CC)-stimulated pregnancies are in agreement with our previous publication in which the mean serum P levels in women taking follicle-maturing drugs and who had ectopic pregnancies (EPs) were 22.2 ng/mL versus 59.9 ng/mL in normal pregnancies compared with values of Long et al. 21.8 versus 50.1 ng/mL, respectively (4). Using the ROC analysis, Long et al. determined that a cutoff of <30 ng/mL is the best discriminating value for abnormal pregnancies (1). Thus, one of the major contributions of this manuscript is that in women suspected of possible EP having taken follicle-maturing drugs, a level of P <30 ng/mL is one additional value to be included in the total diagnostic picture in diagnosing EPs.

Though the authors are careful not to state that the single P measurement should replace serial hCG levels and sonography, the introduction leaves the reader with that suggestion. Indeed, because Yeko et al. demonstrated P <15 ng/mL in 28 of 28 EPs and 17 of 18 abnormal intrauterine pregnancies, they suggested that "it is appropriate to investigate outpatient diagnostic D and C as a method to arrive at the exact diagnosis of EP"; they were not concerned about aborting a normal gestation because spontaneous abortion was almost inevitable

with serum P <15 ng/mL (and possibly even more so with the new discriminatory level established by Long et al.).

However, I write this letter to caution the reader to eliminate serial sera hCG levels and sonography for one simple reason: both Long's and Yeko et al.'s studies did not treat the patients with intrauterine pregnancies with P. We have previously demonstrated saving 19 of 27 pregnancies (70%) with sera P levels <15 ng/mL by aggressively treating with P (5); furthermore, 22 of 33 (66%) and 9 of 15 (60%) of patients proceeded with normal pregnancies after aggressive P therapy despite levels <12 and 8 ng/mL, respectively (4).

Jerome H. Check, M.D.

*The University of Medicine and Dentistry of
New Jersey*

*Robert Wood Johnson Medical School at
Camden*

*Cooper Hospital/University Medical Center
Department of Obstetrics and Gynecology
Division of Reproductive Endocrinology and
Infertility*

Camden, New Jersey

May 20, 1994

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Reply of the Authors:

We appreciate the interest of Dr. Check in our manuscript (1). The purpose of our study was to determine if a discriminatory P concentration

could be established for the prediction of abnormal early gestations in patients who conceived in clomiphene citrate (CC)-treated cycles. Relative operating characteristic curve analysis determined that the best discriminatory P concentration in patients conceived in CC-conceived cycles was 30 ng/mL. This can be compared with 10 ng/mL in spontaneously conceived cycles (2). However, using these discriminatory values of P, there is still error in distinguishing normal from abnormal pregnancies as seen in Table 2 of our article. For this reason, a single P concentration should be used as a predictor of gestational normalcy, but not as a diagnostic tool. In our own practice, we use P concentrations as a guide to how intensely we monitor early pregnancy.

Cecil A. Long, M.D.

Stephen R. Lincoln, M.D.

Neil S. Whitworth, Ph.D.

Bryan D. Cowan, M.D.

Department of Obstetrics and Gynecology

University of Mississippi Medical Center

Jackson, Mississippi

June 28, 1994

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Pregnancy after Abdominal Metroplasty

To the Editor:

We read, with interest, the paper of Kirk et al. (1) that was published in the *Fertility and Sterility* journal in June 1993. This paper prompted us to review our departmental statistics concerning abdominal metroplasty. In our department, from July 1, 1984 until December 1, 1993 a total of 74 trans-abdominal metroplasties were performed on a similar number of patients. The indication in 8 patients was primary infertility. The indication in the other 66 patients was a history of repeated late-pregnancy loss that was associated with a uterus subseptus. The diagnosis of uterus subseptus was based on hysterosalpingography. In all of these patients