Analyses Do Not Support CYP17 Genotype-Estradiol Associations--In Response

Analyses Do Not Support CYP17 Genotype-Estradiol Associations

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In Response: Vitzthum and Thornburg's comments seem to reflect a basic misunderstanding of our paper and its results. As noted in the title of the article, we document an association between CYP17 genotypes and salivary estradiol levels. Variation in follicular steroidogenesis, up to and including ovulatory failure, is precisely the variation we are studying. To remove anovulatory cycles from the sample would be to remove a principal source of variance in estradiol levels between women, a source of variation with direct implications for breast cancer risk (1).

Vitzthum and Thornburg are also incorrect in their assertion that our statistical methods are flawed. In the repeated-measures ANOVA, the univariate F statistic may be safely used when accompanied by appropriate adjustments (Geisser-Greenhouse and Huynh-Feldt) to the degrees of freedom (even if the sphericity requirement is not met). In the article, we provided P values obtained under both types of adjustment. Our use of the Wilcoxon signed-rank test adhered strictly to the assumptions specified in the principal textbook of biostatistical methods by Sokal and Rohlf (2).

References

1. Jasienska G, Thune I, Ellison PT. Energetic factors, ovarian steroids and the risk of breast cancer. Eur J Cancer Prev 2000;9:231 – 9.

2. Sokal RR, Rohlf FJ. Biometry: the Principles and Practice of Statistics in Biological Research. New York: W.H. Freeman; 1997.