

Poster #41

Preconception DDT and Pregnancy Loss: A Prospective Study Using a Biomarker of Pregnancy

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Studies on DDT exposure and pregnancy losses in humans are limited. We examined the effect of DDT exposure on the risk of pregnancy loss in a prospective cohort of 390 newly married, non-smoking, female textile workers in China. Upon stopping contraception, subjects provided daily urine specimens and records of vaginal bleeding for up to one year or until clinical pregnancy. Daily urinary hCG was assayed to detect conception and early pregnancy losses. Clinical pregnancies were followed to detect clinical spontaneous abortions. Venous blood samples were obtained at baseline prior to conception and serum was analyzed for total DDT. Subjects were grouped in tertiles by serum total DDT (Group 1: 5.5 to 22.9 ng/g; Group 2: 23.0 to 36.6 ng/g; Group 3: 36.7 to 113.3 ng/g). Compared to Group 1, the adjusted odds ratio of any pregnancy loss (either early pregnancy loss or clinical spontaneous abortion) in the first observed conception for Group 2 was 1.13 (95% CI: 0.64, 1.98) and 1.91 (95% CI: 1.09, 1.32) for Group 3 (p=0.027 for test of trend). Using logistic regression and a continuous term for serum total DDT, the odds ratio for any pregnancy loss with a 10 ng/g increase in serum total DDT was 1.17 (95% CI: 1.03, 1.32). We conclude that serum total DDT was associated with pregnancy losses in this population.

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