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Urinary cotinine concentration confirms the reduced risk of preeclampsia with tobacco exposure•••★

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Figures

Fig. 1

Urine cotinine concentrations in all samples from women with preeclampsia and their matched control subjects (n = 50). Mean cotinine concentrations were significantly higher in control group (P = .002, Mann-Whitney U test). Mean values are represented by *bars*. A logarithmic scale was used for cotinine values.

Abstract

Objective: We assessed tobacco exposure in nulliparous women with preeclampsia compared with that in control subjects by measuring urinary cotinine to confirm the reduced risk of preeclampsia associated with tobacco exposure during pregnancy. **Study Design:** A case-control study group of 50 women with preeclampsia after 35 weeks of gestation and a group of 50 control subjects matched for gestational age, date of delivery, and body mass index were selected from the project database. Urine obtained on

admission was assayed for cotinine. Self-reported smoking information was blinded during patient selection and laboratory assay. **Results:** Thirty-five patients had detectable urinary cotinine levels, 11 (22%) with preeclampsia and 24 (48%) control women. Mean cotinine concentrations among exposed women were 331 ng/mL for those with preeclampsia and 540 ng/mL for control subjects. The odds ratio of preeclampsia developing in an exposed woman was 0.31 (95% confidence interval, 0.12-0.79). **Conclusion:** These findings, obtained by using laboratory assay, confirm the reduced risk of developing preeclampsia with tobacco exposure. (Am J Obstet Gynecol 1999;181:1192-6.)

Keywords:

Preeclampsia, cotinine, tobacco

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