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Response to letter to Editor

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To the editor:

Dr. Brind claims that by restricting our analyses [1] to invasive breast cancer and censoring the in situ cases at the time of their diagnosis, we made a methodologic error. In fact, we did not. Women were at risk of invasive breast cancer up to the dates of their in situ diagnoses. Nevertheless, we repeated our analyses using Dr. Brind's proposed method, excluding all women who were diagnosed with in situ breast cancer during follow up. In total, we excluded 708 (159 nulliparous and 549 parous) women with in situ breast cancer from the analysis. This had absolutely no impact on our results (see Table). We continue to find no statistically or clinically significant association between induced abortion and breast cancer. Disagreements about the quality of studies occur in science and we continue to disagree with Dr. Brind regarding studies involving databases of fetal death certificates which are known to be incomplete. The analytic concern posed by Dr. Brind did not constitute a bias in our study. Using standard research methods in this well studied prospective cohort of women, we saw no evidence of a relationship between incomplete pregnancy and subsequent development of breast cancer.

Signed:

References

1. Henderson KD, Sullivan-Halley J, Reynolds P, et al. Incomplete pregnancy is not associated with breast cancer risk: the California Teachers Study. *Contraception* 2008;77:391–6. [PubMed: 18477486]

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Table

Original and comparison results showing relative hazard (RH)^a and 95% confidence interval (CI) for invasive breast cancer associated with induced abortion among women in the California Teachers Study, by parity status

	Original Results (in situ cases are censored)		Comparison Results (in situ cases are excluded)	
	Nulliparous	Parous	Nulliparous	Parous
Variable	RH ^a , 95% CI (No. cases)	RH ^a , 95% CI (No. cases)	RH ^a , 95% CI (No. cases)	RH ^a , 95% CI (No. cases)
Ever vs never induced abortion				
Reference group ^b	1.0 (613)	1.0 (1724)	1.0 (613)	1.0 (1724)
Ever had an abortion	0.95, 0.76–1.18 (99)	1.05, 0.92–1.20 (280)	0.95, 0.76–1.18 (99)	1.05, 0.92–1.19 (280)
Total number of induced abortions				
Reference group ^b	1.0 (613)	1.0 (1724)	1.0 (613)	1.0 (1724)
1	0.98, 0.77–1.25 (75)	1.08, 0.93–1.24 (212)	0.98, 0.77–1.25 (75)	1.08, 0.93–1.24 (212)
2+	0.86, 0.57–1.30 (24)	0.97, 0.76–1.24 (68)	0.86, 0.57–1.29 (24)	0.97, 0.76–1.24 (68)

^a Models were adjusted for race, family history of breast cancer, age at menarche and a combination variable of menopausal status and hormone therapy use. Model for parous women was additionally adjusted for age at first full-term pregnancy and number of full-term pregnancies.

^b Reference group for nulliparous women was women who had never been pregnant. Reference group for parous women was women who only had full-term pregnancies.