

Previous caesarean and the risk of antepartum stillbirth

Sir,

The study of Wood *et al.*¹ addressed the clinically important question of the relationship between previous caesarean delivery and the risk of antepartum stillbirth, following our previous report of an association in 2003.² Their study had some strengths over other subsequent analyses in that it distinguished between antepartum and intrapartum stillbirth and exactly replicated our methods. However, we would like to draw the authors' attention to two points. First, we have replicated our observation in Scottish births from 1999 to 2001, that is data from the 3 years which immediately followed the period studied in our original analysis. The association between previous caesarean section and unexplained stillbirth in 1999–2001 was of a comparable magnitude to 1992–1998 and was statistically significant at $P = 0.001$.³ This virtually excludes the possibility that our original observation was a chance finding. Wood *et al.* appear to have missed this study in their survey of the subsequent literature. Secondly, the authors discuss their results as if they are somehow a contradiction of our first report of this association. They misunderstand a P value in excess of 0.05 with a truly negative finding. They reported an adjusted hazard ratio for stillbirth among women with a previous caesarean section of 1.36 with 95% CI: 0.98–1.89. We reported a hazard ratio of 1.64 with 95% CI: 1.17–2.30.² Anyone with a basic understanding of statistics would recognise these as being compatible. Indeed, a formal two-sample t -test (converting the hazard ratios and confidence intervals into coefficient means and standard errors) indicates there is no evidence to conclude a difference between these two hazard ratios ($P = 0.44$). Hence, their finding is entirely consistent with our previous report and it is a very basic misunderstanding of statistical inference to conclude otherwise. The final statement of the abstract is, frankly, misleading and it is disappointing that this evaded normal editorial and statistical review. ■

References

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- 3 Smith GCS, Shah I, White IR, Pell JP, Dobbie R. Previous pre-eclampsia, preterm delivery and delivery of a small for gestational age infant and the risk of unexplained stillbirth in the second pregnancy: a retrospective cohort study, Scotland 1992–2001. *Am J Epidemiol* 2007;165:194–202.

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