

Even if my good intentions wrongly came over as a 'stinging rebuke' it would be worthwhile if this helps re-focus priorities.

ANDRÉ KRUGER

E-mail: a.k@doctors.net.uk

### Bacterial vaginosis: not a risk factor for preterm birth?

Oakeshott *et al* failed to document an association between bacterial vaginosis in early pregnancy and subsequent preterm birth in their 37 community centre-based study.<sup>1</sup> They further suggest that the relative risk of preterm birth in women with vaginosis may have been overestimated in hospital-based studies due to patient selection. Since we lack population-based prevalence estimates of bacterial vaginosis,<sup>2</sup> the distinction between community- versus hospital-based risks may indeed be valid as has been suggested before.<sup>3</sup> We are, however, concerned about the take-home messages sent out to the general practitioner.<sup>1</sup>

The first reason is that this community-based sample seems to enjoy a preterm birth rate of 4.9%, and among black women an even more favourable preterm birth prevalence of 1.1%, considering the reference population (England) has a prematurity risk of at least one out of seven pregnancies.<sup>4</sup>

One can only speculate, though, why this sample selectively drawn from a London community was at apparently lower risk. Although the authors explain the differential risk by putting emphasis on studying a low-risk community-based cohort — as allegedly opposed to hospital-attending women — it must be acknowledged that their sample may not be quite representative of the community it was drawn from. Indeed, the authors actually recruited 1216 women from 37 centres over a 2-year period, suggesting that within each centre, less than two patients a month on average volunteered to enroll in the study.

Secondly, even if there was no genuine association between bacterial vaginosis at <10 weeks' gestation and preterm birth, the study may lack the

power to substantiate this. Indeed, the 95% confidence interval on the relative risk of preterm birth stretches from 0.4 to 2.2 and contains the typical bacterial vaginosis risk estimate of 2, as recently shown in a systematic review on this subject.<sup>5</sup> In fact, for typical relative risk estimates of 1.5 and 2.0, this study has a power of 22.8% and 55.1%, respectively, to detect a significant effect at the 5% level. To document an overall relative risk of 2.0 with a power of 80%, at least 224 women with and 1494 women without bacterial vaginosis should have been included. Similarly, this community-based sample comprised 88 black Caribbean and black African women, accounting for merely two preterm births, and therefore this study did not allow risk stratification for ethnicity.

We therefore believe that methodological concerns prevent any firm conclusions being drawn from the study by Oakeshott *et al*.

HANS VERSTRAELEN

Department of Obstetrics and Gynaecology

STIJN VANSTEELENDT

Department of Applied Mathematics and Informatics

MARLEEN TEMMERMAN

Department of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, Ghent University Hospital, De Pintelaan 185, B-9000 Ghent, Belgium  
E-mail: Marleen.Temmerman@UGent.be

### References

- Oakeshott P, Kerry S, Hay S, Hay P. Bacterial vaginosis and preterm birth: a prospective community-based cohort study. *Br J Gen Pract* 2004; **54**: 119-122.
- Morris M, Nicoll A, Simms I, *et al*. Bacterial vaginosis: a public health review. *BJOG* 2001; **108**: 439-450.
- Gratacos E, Figueras F, Barranco M, *et al*. Prevalence of bacterial vaginosis and correlation of clinical to Gram stain diagnostic criteria in low risk pregnant women. *Eur J Epidemiol* 1999; **15**(10): 913-916.
- Department of Health. *NHS maternity statistics, England 2001-2002*. Statistical Bulletin 2003/09. London: Department of Health, 2003.
- Leitich H, Leitich H, Bodner-Adler B, *et al*. Bacterial vaginosis as a risk factor for preterm delivery: a meta-analysis. *Am J Obstet Gynecol* 2003; **189**: 139-147.

### Authors' response

We agree that our study lacked power to look at the relationship between bacterial vaginosis in early pregnancy and preterm birth. It was originally designed to look at the relation between bacterial vaginosis and miscarriage before 16 weeks' gestation.<sup>1</sup> However, when we found that few women diagnosed with bacterial vaginosis were being treated, we extended the follow-up period to look at preterm birth.

Verstraelen *et al* correctly point out that (as with many primary care-based studies) recruitment was a major challenge and varied widely between practices. Although participants were broadly representative in terms of age and ethnicity, there was a preponderance of women from higher socioeconomic groups. The main positive conclusion from our study is that screening for bacterial vaginosis and chlamydial infection using self-taken swabs is feasible even during pregnancy.

PIPPA OAKESHOTT

Senior Lecturer in General Practice

PHILLIP HAY

Senior Lecturer in Genitourinary Medicine

SIMA HAY

Research Midwife, Community Health Sciences

SALLY KERRY

Senior Lecturer in Medical Statistics, St George's Hospital Medical School, London SW17 0E. E-mail: oakeshot@sghms.ac.uk

### References

- Oakeshott P, Hay P, Hay S, Steinke F, Rink E, Kerry S. Is bacterial vaginosis or chlamydial infection associated with miscarriage before 16 weeks gestation? A prospective community based cohort study. *BMJ* 2002; **325**: 1334-1336.

### Correction

In the June 2004 issue, in Smith L, Ernst E, Ewings P, *et al*. Co-ingestion of herbal medicines and warfarin (*Br J Gen Pract* 2004; **54**: 439-441), the following acknowledgment was omitted: This study was funded entirely by a grant from the Maurice Laing Foundation.