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Measuring fundal height

THE linchpin of good antenatal care is accurate gestational dating. Traditionally, this is achieved by the estimation of fetal age by the application of Naegele's rule and correlation of this estimate with the fundal height. Unfortunately, this method may often prove fallible since many women are uncertain of their dates or have irregular menstrual cycles. Accurate measurement of fundal height may be confounded by maternal obesity, short stature, a full bladder or even race. Thus, most obstetricians today rely on ultrasound measurement of specific fetal dimensions for gestational dating bearing in mind that ultrasound measurement is most accurate when undertaken before week 20 of pregnancy.

The aim of the study reported by Euans and colleagues was to ascertain whether measurement of fundal height by ultrasonography rather than manually would prove more accurate and would evade the confounding factors mentioned above. They studied 159 consecutive women with singleton pregnancies at between 11 and 42 weeks' gestation, dividing them into two groups, normal and obese, depending on whether or not they were more than 20% above the normal weight for their height. The height of the fundus above the pubic symphysis was then measured both manually and by ultrasonography and fetal age was formally assessed using multiple conventional ultrasound parameters.

In only 12% of the sample did manual and ultrasound fundal values differ by more than two weeks and the authors showed no significant statistical difference between manual and ultrasound techniques. Even in the obese group, the measurements were interchangeable. Race had no influence on the relationship between manual and ultrasound fundal height measurements. Unfortunately, the authors did not assess the effect of a full bladder on either method, so the effect of this was not included in the study.

This paper showed that routine obstetric ultrasound may not be necessary solely for the purpose of determining gestational age and may only be indicated when there is a serial discrepancy between fundal height and calculated dates or where there is suspicion of growth retardation or other anomalies. To quote the authors: 'High technology is most effectively used in combination with good clinical skill.'

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Source: Euans DW, Connor PD, Hahn RG, *et al.* A comparison of manual and ultrasound measurements of fundal height. *J Fam Pract* 1995; **40**: 233-236.

Educational level of spouses: risk of mortality

THERE is a constant search for new factors that influence cardiovascular disease mortality rates, to enhance current knowledge of associations with hypertension, hyperlipidaemia, obesity, poor nutrition, lack of exercise and psychiatric states. Many studies have concentrated on the prevalence of these factors among the lower social classes. Type A personality has also been highlighted as being disadvantaged with regard to cardiovascular disease mortality.

A recent 9.5 year follow-up study (World Health Organization Kaunas-Rotterdam intervention study, KRIS) comparing two disparate communities in Lithuania and the Netherlands has been able, *inter alia*, to examine the relationship between the educational levels of professional persons and their spouses. It highlights the increased all-cause mortality of professionals who have spouses who are less well educated than themselves. The authors comment on various studies highlighting the fact that professionals with type A personalities fare badly when married to co-professionals of equal or greater educational levels. The study concentrates on a male cohort and, while commenting on higher or lower socioeconomic status, does not eliminate simply marrying across different social classes, where different expectations of behaviour and caring may be of profound importance.

The authors state that, despite the central role of the wife in family matters, little or no research has been conducted into the effects of socioeconomic status of wives upon professional men's mortality. They show a direct relationship between the socioeconomic status and the lower levels of education of wives, highlighting a significant association between a wife's education and all-cause mortality of her husband, even after correcting for increased smoking of the men and all other risk factors.

The conclusion of this study, although at odds with some others, also comments upon the increases in recent years of women in the workforce as well as a number of other factors which may come into play after a latent period, and wonders if professional women may in due course suffer the same problems as men.

Clearly further studies will examine these findings, although human emotions may well confound any changes in behaviour in this field, as has been experienced elsewhere.

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Source: Bosma H, Appels A, Sturmans F, *et al.* Educational level of spouses and risk of mortality: the WHO Kaunas-Rotterdam intervention study (KRIS). *Int J Epidemiol* 1995; **24**: 119-126.

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