

pressure was seen throughout the study. No effect was seen on fetal heart rate.

Comment

The efficacy of oral calcium antagonists in controlling blood pressure makes their use attractive in pre-eclampsia. As experience with nifedipine has been based largely on its value as a second line agent in pregnancies that are already severely compromised, however, assessment of its possible adverse effects is difficult as the outcome in these pregnancies is often poor. The results of this study suggest that, when the Doppler waveform variables are normal, nifedipine can lower blood pressure in women with pre-eclampsia

without compromising blood flow in the fetus. Further studies are needed to assess the consequences of lowering blood pressure with this and other drugs in patients in whom the Doppler variables are abnormal.

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- 3 Lindow SW, Davies N, Davey DA, Smith JA. The effect of sublingual nifedipine on uteroplacental blood flow in hypertensive pregnancy. *Br J Obstet Gynaecol* 1988;95:1276-81.
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Regional variations in policy on exposing women of childbearing age to ionising radiation

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Women and their doctors often experience frustration because radiological examinations are postponed because of the potential risk to a fetus. Junior doctors find that the policy varies from region to region for routine procedures. We carried out a survey to find out how local policies differ despite the existence of a national policy.

Methods and results

Fifty hospitals were selected as a sample. One regional referral hospital was selected in each of the 16 regions in England, Scotland, and Wales and at least one other district general hospital was selected at random from each region. We contacted the superintendent radiographer in each hospital either in person by telephone or by a printed returnable letter. We asked whether they followed a 10 day rule, a 28 day rule, or another policy on irradiating the pelvis and abdomen in women of childbearing age.

We received replies from all 50 hospitals; one refused to give information relevant to the study. Twenty four followed a strict 28 day rule, 10 followed a 10 day rule, seven required the patient to sign a consent form saying that to the best of their knowledge they were not pregnant, and three displayed notices in the radiology department asking patients to tell the radiographer whether they were pregnant. All the hospitals used a 28 day rule with good screening and collimation for radiography of the head and neck, chest, arms, and legs.

Comment

In 1952 Russell and Russell suggested that radiation caused damage to the development of mouse embryos.¹ The results of this and other research prompted the International Commission on Radiological Protection to recommend that "all radiological examinations of the lower abdomen and pelvis of women of reproductive capacity that are not of importance in connection with the immediate illness of the patient be limited in time to the period when pregnancy is improbable (the 10 day interval following the onset of menstruation)." This became the so called "10 day rule."

Recently it was suggested that this rule is unnecessarily restrictive. Russell summarised the arguments against a 10 day rule.³ Firstly, organogenesis of human embryos does not start until the third week after conception. Unless a menstrual period has been missed, it is unnecessary to avoid irradiation. Secondly, there is no evidence that irradiating a fetus in the early weeks of pregnancy is more dangerous than irradiating the ovum in the weeks before fertilisation.⁴ Thirdly, the worst estimates would predict one extra case of abnormality in 30 years. Finally, the cost of implementing the 10 day rule appears to be a hundred times greater than any possible benefit.

The International Commission on Radiological Protection withdrew its support of the 10 day rule in 1984, suggesting that no special limitation was needed on exposures required within four weeks from the onset of menstruation.⁵ The National Radiological Protection Board followed in 1985 and adopted the "28 day rule."

Though the National Radiological Protection Board issued these guidelines over three years ago, the results of our survey suggest that a fifth of hospitals in our sample of 50 have not yet changed their policy. This is costly to the National Health Service and causes inconvenience to patients. In a few hospitals notices were displayed in the radiography department asking patients to tell doctors that they were pregnant. But this method will not reach people who cannot read English or whose vision is poor.

We ask whether this variation in policy is an example of clinical freedom, or whether national recommendations should be enforced, perhaps by statute. Do some radiology departments not trust the recommendations of the International Commission on Radiological Protection or are they just being overcautious?

- 1 Russell LB, Russell WL. Radiation hazards to the embryo and fetus. *Radiology* 1952;58:369-76.
- 2 International Commission on Radiological Protection. *Code of practice for the protection of persons against ionizing radiation arising from medical and dental use*. London: HMSO, 1972.
- 3 Russell JG. The rise and fall of the ten day rule. *Br J Radiol* 1986;59:3-6.
- 4 Anonymous. Antenatal ionising radiation and cancer [Editorial]. *Lancet* 1988;i:448-9.
- 5 International Commission on Radiological Protection. *Statement from the Washington meeting*. Oxford: Pergamon Press, 1984.

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Correction

Prevalence of antibody indicating Lyme disease in farmers in Wigtownshire

An editorial error occurred in this article by Dr A G Baird and others (30 September, p 836). In the first sentence of the third paragraph in the patients, methods, and results section "Listeria monocytogenes" should have read "infectious mononucleosis."