RIFAMPICIN IN PREGNANCY

Sir,

Rifampicin has been widely used for a number of years in the treatment of tuberculosis and it is now given to virtually every leprosy patient on multiple drug therapy. It is therefore disconcerting to read in a recent *British National Formulary* that 'Rifampicin should be avoided in pregnancy'.[1] The data sheets of both main manufacturers of the drug offer similar advice, with additional warning about its usc during breast-feeding.

Evidence regarding teratogenicity of rifampicin in humans is inconclusive.[2] Animal studies (whose potential for extrapolation to humans is, of course, limited) do, however, indicate that suspicion is warranted. High doses (150 mg/kg and over) produce in rats neural tube defects and limb malformations, in mice cleft palate and other mesodermal defects, but in rabbits no ill-effects.[3] In humans, rifampicin crosses the placenta to foetal circulation and amniotic fluid but published data on the use of the drug in pregnant women neither prove nor disprove teratogenicity. The data are drawn from small, mainly uncontrolled studies of the use of rifampicin in the treatment of tuberculosis under a variety of circumstances.[3, 5, 6] They reveal a small though nonsignificant increase in the rate of limb-reduction deformities, but no overall increase in congenital malformations.

Current consensus is that rifampicin is probably not teratogenic and that any increased risk to the foetus must be small compared to risks from other sources. Is its use justified under all circumstances? It is important to assess the possible risks in the context of leprosy. My own view, in the light of current evidence, is that I would not be happy to expose an unborn child of my own to even small possible risks if it were merely for the sake of beginning chemotherapy for *non*-lepromatous leprosy a few months earlier. With *lepromatous* leprosy however, the risks of transmitting the disease to others would seem to favour a decision to use rifampicin.

However, in many leprosy-endemic areas and under field conditions, the decision is far from easy to make. For example, in some communities, advice to avoid rifampicin in pregnancy might iniate unwarranted suspicion about leprosy treatment in general and in some leprosy treatment programmes additional complications in the treatment regimens may cause unacceptable difficulties for staff. For some patients, advice to delay starting treatment may mean they are in fact not seen again until the disease has caused severe and perhaps, irremediable problems. However, it is in just these situations that an increased incidence of congenital malformations would easily go unnoticed.

Administered in later pregnancy, rifampicin can in an unknown proportion of cases, give rise to a haemorrhagic tendency in the newborn baby.[2, 6, 7] This risk is easier to accept in situations where a baby with a bleeding problem is assured of appropriate treatment than it is in the circumstances of the majority of leprosy patients.

Prescribing rifampicin during lactation is less worrying. There have been no reports of adverse effects on breast-feeding babies whose mothers were taking this drug. Such babies will ingest less than 1% of the normal therapeutic dose for infants and less than 0·1% of the dose taken by the mother.[4] The recommendation that the breast-fed infant should be checked regularly for signs of toxicity may be impossible to follow and the suggestion of minimizing the infant's ingestion by giving rifampicin immediately after a feed and then not feeding again for several hours may be quite inappropriate in developing countries. In most leprosy endemic areas, the very real risks of artificial feeding must far outweigh any small theoretical risk from rifampicin in breast milk.

Doubts about the safety of rifampicin during pregnancy have not been completely resolved and deserve further assessment. This is clearly more important now that MDT is being used so widely. Clinicians, obstetricians, midwives and paediatricians should be encouraged to report all malformations possibly associted with this drug.

185 Rochdale Road,
Edenfield,
Ramsbottom, Lancs BL0 0RG

ALISON SUMMERS

References

[1] British National Formulary; No 9: 1985; 211.

[2] Chow AW, Jewesson PJ. Pharmacokinetics and Safety of Antimicrobial Agents During Pregnancy. *Rev Infect Dis*, 1985; **7**(3): 287–313.

[3] CIBA. Rimactane (Rifampicin) in Pregnancy. CIBA Hospital Services bulletin 1980.

[4] Snider DE, Powell KE. Should Women Taking Antituberculosis Drugs Breast-feed? *Arch Int Med*, 1984; **144:** 598–90.

[5] Scheinhorn DJ, Angelillo VA. Antituberculous Therapy in Pregnancy—Risks to the Fetus. *West J Med*, 1977; **127:** 195–8.

[6] Snider DE, Layde PM, Johnson MW, Lyle MA. Treatment of Tuberculosis During Pregnancy. *Amer Rev Res Dis*, 1980; **122,** 65–79.

[7] Steen JSM, Stainton-Ellis DM. Rifampicin in Pregnancy (letter). *Lancet*, 1977; Sept **17,** 604–5.