Letter to the Editor

Measles and women of childbearing age

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During the past two decades, there has been an altered epidemiologic scenario for measles. There have been many outbreaks affecting adolescents, young adults, and infants below 6 months of age. The disease profile has been addressed by offering more than one dose of vaccine in routine immunization. Alternatively, in different parts of North and South America, measles vaccination strategies have consisted of catch-up, keep-up and follow-up campaigns.1 Usually, such strategies against measles have involved children 1–14 years of age. Although measles virus does infect pregnant women, neonates and young infants, live measles vaccines with potential adverse effects on the fetus have not been employed in pregnant females.

An outbreak of measles involved pregnant women in Burkina Faso. The clinical manifestations in 16 infected mothers, with mean age, gravidity and parity of 20.6 years, 2.1 and 1.1, respectively, included six cases of laryngitis, three cases of pneumonia, two abortions, three stillbirths, and one preterm delivery.2 In Saudi Arabia, pneumonia, fever and high prematurity accompanied measles in 40 pregnant females.3 Furthermore, infants below 6 months of age also suffer from measles. Measles virus was isolated from 192 infants aged less than 6 months and 44 infants aged less than 4 months at the University Teaching Hospital at Lusaka, Zambia.4 There was unequivocal evidence of measles in four 4-month-old infants in an orphanage. Measles virus was isolated from such orphans at Pune, in India.5

Ideally, any measles mortality or morbidity during pregnancy would be best tackled through identification of every susceptible seronegative woman. Simple procedures for quantification of measles virus-specific IgG (mIgG) that do not require costly equipment or trained personnel but could be carried out in obstetricians' premises would be an invaluable asset in this connection. Initial laboratory data have indicated that antibody assays with sensitized gelatin particles that are agglutinated by measles virus hemagglutinin and fusion protein antibody are as sensitive as the plaque neutralization test.6 Likewise, use of saliva samples rather than serum samples for quantification of measles virus-specific IgM7 appears to be satisfactory. Their identical field performance should simplify the specific diagnosis of measles, including its complications.

Moreover, any susceptibility to measles virus could be assayed concurrently during an identical screening for rubella. The susceptible women who were not pregnant or not planning to get pregnant for at least 1 month could be given measles–mumps–rubella vaccine. Alternatively, a second dose of measles virus vaccine could be given to someone who was neither pregnant nor planning a pregnancy. The cost of immunoglobulin might be prohibitive for susceptible pregnant women in endemic areas in poor countries. Certainly, they could be immunized immediately after childbirth.

To conclude, the use of measles vaccine or immunoglobulin in women in childbearing age or the early postpartum period6 would be cost-effective. Pre-travel immunization would also be appropriate in women traveling from measles-free countries to measles-endemic areas. The pre-travel vaccine should protect women in the event of a pregnancy while they are in measles-endemic areas.

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REFERENCES


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