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Letter to the Editor

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Twinning and Pediatric AIDS: Alternative Explanations

An elevated incidence of twins, compared with nontwins, among infants diagnosed with maternally transmitted acquired immunodeficiency syndrome (AIDS) has been reported (Thomas et al. 1990). The possibility of more frequent drug use by mothers of multiples and greater susceptibility of twins rather than singletons to HIV infection will be considered in future research by these investigators. Resolution of this observation might be further assisted by examining possible associations between the frequency of dizygotic (DZ) twinning, coital rates, time of conception, and marital status.

Increased coital rate has been suggested as an explanation for increased DZ twinning due to superfecundity, or fertilizations occurring on different occasions within a menstrual cycle (James 1981). Increased coital rate has, furthermore, been offered as an explanation for increased DZ twinning following periods of sexual abstinence (James 1981, 1986) and increased DZ twinning among conceptions occurring during the early months of marriage (Bulmer 1959). An increased rate of DZ twinning has also been reported among illegitimate births in Finland (Eriksson and Fellman 1967). Illegitimate DZ twinning rates also exceeded legitimate DZ twinning rates in England and Wales (1962–1966), except for women under twenty years of age; a lower coital rate among young women with illegitimate pregnancies was suggested as an explanation (James 1981). Finally, all twins in the study by Thomas et al. were nonwhite. An increased rate of DZ twinning among black populations, relative to white and Oriental populations, has been well documented (Bulmer 1970) and may explain, at least in part, the high incidence of twinning among mothers in the present sample.

Mothers of DZ twins have been described as a "reproductive elite" in view of their reproductive success (James 1981). Numerous factors (e.g., maternal height and weight, family history of twinning) have been associated with DZ twinning (Bryan 1983). Greater menstrual regularity among mothers of unlike-sex (DZ) twins has been linked to relatively prompt conception, compared with other women (Philippe and Roy 1989). The possible associations between DZ twinning and sexual practice may, however, be especially relevant to the excess twinning observed among HIV-infected mothers. In view of the foregoing, it is meaningful that five of the seven twin pairs for whom physicians provided impressions of zygosity were dizygotic; this information was unavailable for the three remaining twin pairs. [It should be noted, however, that physicians' judgments of zygosity do not always agree with diagnoses based on serological analysis; see Segal (1984)]. It is possible that the population of

women infected with HIV includes twin-prone individuals whose frequency and pattern of sexual activity enhance the likelihood of DZ twinning. Thomas et al. (1990) are, fortunately, pursuing prospective studies of women infected with HIV so that meaningful relationships between twinning and HIV can be identified in the near future. Accurate classification of affected twin pairs as monozygotic or dizygotic and information on coital frequency will be critical additions to the database. The availability of this information may help to identify mothers and infants at high risk for susceptibility to HIV and may suggest appropriate interventions.

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