Favism in the African type of glucose-6-phosphate dehydrogenase deficiency (A-)

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Susceptibility to haemolytic anaemia after ingestion of fava beans has been investigated extensively in the Mediterranean, but favism has also been observed in other countries including England, where variants of glucose-6-phosphate dehydrogenase other than the Mediterranean variant have been responsible. In general, all patients have very low glucose-6-phosphate dehydrogenase activity in red cells (<5% of normal activity). Favism is widely believed not to occur in subjects with the glucose-6-phosphate dehydrogenase A variant, which has a higher residual activity (10-20% of normal) and is present mainly in people of African origin. We report on three patients with the A variant who suffered typical attacks of clinical favism.

Case reports

Case 1—A 19 month old Italian boy was admitted to hospital in Genoa three days after eating fava beans. He was acutely ill and was passing dark urine. On admission his haemoglobin concentration was 50 g/L, he had reticulocytosis of 7%, and a direct antiglobulin test yielded a negative result. Glucose-6-phosphate dehydrogenase activity in erythrocytes was within normal limits, but four months later it was 10% of the normal value.

Case 2—A 4 year old black boy from Venezuela was admitted to the paediatric clinic in Genoa with headache, vomiting, anaemia, and dark urine. Haemoglobin concentration was 51 g/L, and he had reticulocytosis of 9%. Sixty hours earlier he had eaten fresh fava beans. During the haemolytic attack glucose-6-phosphate dehydrogenase activity was within the normal range, but five months later it was 12% of normal.

Case 3—A 6 month old girl with an English mother and Jamaican father was admitted to Alexandra Hospital, Worcester, with a 24 hour history of jaundice, pallor, and dark urine. Haemoglobin concentration was 66 g/L, and she had reticulocytosis of 5%. A direct antiglobulin test yielded a negative result.

Postneonatal mortality among illegitimate children registered by one or both parents

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Postneonatal mortality is still higher in social class V than social class I, in illegitimate than legitimate children, and in children of younger than older mothers. Over a fifth of babies born in England and Wales are illegitimate. These births may be divided into two groups: those registered by both parents and those registered by only one parent. When both parents register the birth it is taken to indicate paternal support for the mother; it is often thought that having parents in a stable relationship, albeit unmarried, is as beneficial to a child as having married parents. If this is true the postneonatal mortalities, which are taken to indicate the standard of care for infants, should be similar.

Methods and results

All the data were obtained from the Office of Population Censuses and Surveys (DH3 and FM1 series (all crown copyrights)). The data for 1984 and 1985 were added together and then divided by two to give an annual rate. Postneonatal mortality for the five main social classes (I-V) was compared with that for the five main maternal age groups (<20, 20-24, 25-29, 30-34, and ≥35) (figure); the rate for the social classes was based on legitimate births only and the rate for the maternal age groups on all live births. Rates by social class were compared with rates by maternal age groups. The total numbers of postneonatal deaths case 1 among illegitimate children registered by one parent, 303; in social class V, 164; among mothers aged <20,