The swollen leg and primary lymphoedema

Carbamazepine, phenytoin, and the fetus

The fetal hydantoin syndrome was first described in 1975. It has been estimated to occur in between 6 and 30% of at risk babies. Reports of adverse effects from carbamazepine in pregnancy have been less common. A report from Toronto (Dennis Scolnik and colleagues, Journal of the American Medical Association 1994; 271: 767–70) compares children born after exposure during pregnancy to either phenytoin or carbamazepine used as single drugs. In a prospective study the children of 34 mothers who took phenytoin in pregnancy were compared with those of 36 who took carbamazepine and 70 paired mothers matched for age, parity, gravidity, and social class, who took only non-teratogens. The children were assessed between 18 and 36 months of age using Bayley or McCarthy scales of development and Reynell language scales.

Mean IQ was 103.1 in the phenytoin-exposed children and 113.4 in their paired controls. In children who had been exposed as fetuses to carbamazepine the mean IQ was 111.5 and in their paired controls it was 114.9. The difference was significant only for the phenytoin group (p<0.05). Seven of the phenytoin children had features of the fetal hydantoin syndrome. An IQ of 84 or less was found in seven of the 34 children in the phenytoin group and one of their controls (p<0.01). (Of the seven children with fetal hydantoin syndrome two had IQ ≤84.) Such an IQ was found in three of the 36 carbamazepine-exposed children and one of their controls. The phenytoin-exposed children also performed poorly on tests of verbal comprehension and expressive language. There was no significant difference between trial mothers and controls as regards IQ or social class.

The authors suggest that carbamazepine should be preferred to phenytoin in pregnancy. Most paediatricians prefer carbamazepine anyway.

ARCHIVIST
