

to the belief that there must be a predisposition to a given malformation together with a predisposition to react adversely to an agent given at the vulnerable period of development as the three essentials of teratogenesis.

The first retrospective study of congenital heart patients was inconclusive.⁵ We did not find a statistical difference at the .05 level. After publishing these findings we redesigned our protocol, admitted younger patients into the study (to reduce maternal memory bias) and tightened our verification procedures. After two more years we analyzed our new data, found a statistically significant difference between the congenital heart and control groups, and were forced to retract our previous report that there was no significant amphetamine influence in congenital heart disease.⁶ Thus two studies by the same investigators led to opposite conclusions. We believe the second study to be the more reliable one.

It has already been pointed out that retrospective studies are less conclusive than prospective ones, so we put our eggs in the basket of a large obstetrical practice that used amphetamines liberally. I carefully avoided telling the obstetricians which of the many drugs on our questionnaire we were most interested in, but a medical student working with me spilled the beans and the obstetricians immediately stopped using amphetamines--and lost interest in our project. That was at a time when malpractice insurance was \$60 per year. You can imagine what a threat such studies are now. We did publish a small prospective study of 240 patients, eight of whom delivered infants with malformations, three of which were associated with maternal exposure to amphetamines.⁷ The loss of a prospective study of sufficient size was probably of positive benefit to the patients, but it has obviated our reaching the confident conclusions we desired.