Update on the Effects of Cocaine in Pregnancy

By Claire D. Coles, Ph.D.

In the 1980’s prenatal cocaine exposure was believed to cause severe and permanent damage to the developing fetus. Newspaper headlines talked about the “bio-underclass” that would be created by mothers using cocaine during pregnancy and many women were arrested in Georgia and in other states for “prenatal child abuse”. Then the pendulum swung as it so often does. It became evident that the real effects of cocaine were not nearly as severe as had been reported at first and many people turned their attention to other issues. However, the National Institute on Drug Abuse (NIDA) supported a number of studies, including one by this laboratory, that have investigated the long-term outcome in children whose mothers used cocaine, and other drugs, in pregnancy. We have reported in previous newsletters on the outcome for infants and toddlers. Those children did not have any physical problems and did not show less growth than other children. They also had similar ability levels; however, they did have more problems with the regulation of behavior and arousal when they were 24 months old. Other projects, around the country, have reported similar findings.

In the last few months, studies have been completed on older children, from 4 to 10 years of age. These studies, from different parts of the country, have been able to look at school achievement, intelligence, motor skills, visual-motor skills, and attention. They have also kept a close eye on the way in which the child’s rearing environment affects these same outcomes. It is important to pay attention to the caregiving environment in children of substance abusing women because such children are at much greater risk for
poverty, neglect, abuse, and environmental conditions that do not support positive development.

Several of these studies were presented by their authors at the recent Society for Research on Child Development Biennial Meeting in Tampa Florida. The studies that were reported at the meeting were done in Pittsburgh at the University of Pennsylvania, in Gainesville at the University of Florida and in Miami at Jackson Memorial Hospital and as part of a four site collaborative study called the Maternal Life Styles Study that was carried out in New Haven, Detroit, Memphis, and Miami. Overall, the take home message was this—cocaine exposure prenatally does have a measurable effect on long-term development but the caregiving environment is a much bigger influence. The environmental factors that were examined included socioeconomic status (poverty), mother’s education, mother’s mental health status and drug use. The child’s growth also influenced outcomes. Children who showed normal growth did not appear to be negatively affected by their exposure while those who had small head circumferences did less well than their peers.

When there was a cocaine effect, after other factors were controlled, effects were noticed on ability, visual/motor skills, attention and memory. As had been noticed in younger children, behavior was often affected with the cocaine-exposed children being more impulsive and having poorer attention. Some also showed more depressive symptoms. All these results suggest that cocaine exposure in pregnancy, while not as damaging as initially reported, is still a risk factor for negative childhood outcomes. Children of substance abusers should be identified early in life and provided with the medical, social and educational services that they need to reach their highest potential.
In future newsletters, we will present the information collected at the Emory University Study, Atlanta, Georgia. This is a study of social and emotional development in 8-year old, cocaine exposed children and it will be completed in May, 2003.

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