

Methamphetamine Exposure in Infants and Young Children

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Introduction: For the past decade, methamphetamine use in Thailand has reached epidemic portion. Data from the Office of Narcotics Control Board (ONCB) of Thailand reveals increasing number of methamphetamine trafficking. Among one of its most popular users are young women of child bearing age¹. As a result, methamphetamine abuse in pregnant women has been on the increase with subsequent exposures both to the neonates transplacentally and young children living in the homes of methamphetamine abusers. **Methamphetamine effects on fetus and neonates:** Methamphetamine can be transferred transplacentally to a significant amount, with good correlation between mother and fetal methamphetamine levels.². Intrauterine deaths have been reported in pregnant women who are methamphetamine abusers, although the evidence is far from clear-cut^{3,4}. These infants are also shown to have smaller Occipito-Frontal-Circumference(OFC), smaller birth weights and increased incidents of Intrauterine Growth Retardation (IUGR) when compared non-exposed infants⁵⁻⁷. Other acute effects are fetal arrhythmias⁸ and neonatal abstinence syndrome. **Methamphetamine effects on young children:** Children of methamphetamine- abusing mothers are at risk for accidental ingestion of the drug. In Thailand, methamphetamines are sold as tablets that are then crushed, heated, and the fume inhaled. Accidental exposures occur when tablets are inadvertently dropped or a secret stash is found by the child who ingested the drug thinking that it is candy. Matteucci⁹ reports on 47 children who are exposed to methamphetamine mostly as an injectible or inhalation (ICE) form. They experience mostly minor effects with 3 cases having major effect. The exposed children presents with elevated blood pressure values greater than 90th percentile for age and tachycardia. Elevated body temperature is not a common finding. Two patients have seizures and 3 patients have elevated liver enzymes. **Long-term implications:** The problem of illicit drug use during pregnancy creates a vicious cycle. Studies show that exposure to methamphetamine and other illicit drugs in-utero often result in delayed development and long term neuropsychiatric disorders such as Attention Deficit Hyperactivity Disorder(ADHD) and other learning disorders¹⁰. They present a difficult and unique child-rearing challenge to a family with little social reserves. Frequently, they are placed in foster care settings where their learning problems become permanent and irreversible.**Conclusion:** Methamphetamine exposure in children can be devastating in many respects. Timely recognition of the toxic syndrome can lead to identification of exposed in infants and children, and the institution of emergent and long term interventions that can decrease the morbidity for these patients.

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