

Perinatal Drug Abuse in KK Women's and Children's Hospital

P Agarwal,* *M Med, MD, DNB*, V S Rajadurai,* *FAMS, MD, MRCP*, S Bhavani,** *MRCP*, K W Tan,*** *M Med (Paed), MBBS*

Abstract

No local figures are available in Singapore on the incidence of perinatal drug abuse and its effect on the foetus and the neonate. The objectives of this study were to determine the incidence of perinatal drug abuse and neonatal abstinence syndrome; to identify a maternal profile at high risk for substance abuse and to document the presenting features and treatment of infants with neonatal abstinence syndrome. Out of 14,690 births during the period January 1994 to December 1996, 38 (0.25%) had evidence of perinatal drug abuse. The study revealed that a high-risk maternal profile for drug abuse comprised of single mothers (52%); history of smoking (52%); no antenatal care (37%) and belonging to the Malay ethnic group (82%); and younger maternal age. Self-reporting was uncommon, occurring only in 8% and in 40% of cases, there was no known history of maternal drug addiction. The drug abused in all cases was heroin. Human immunodeficiency virus (HIV) screening was done only in a minority (21%) of the mothers and it was negative in all. Eighteen (47%) infants had evidence of neonatal abstinence syndrome with neurological manifestations being the commonest. Urine toxicology screening was positive in 26% of cases and had only 70% sensitivity and 41% positive predictive value. On follow up, default rate was high with 42% babies not attending follow up at the outpatient clinic.

In conclusion, there is a need to maintain a high index of suspicion of substance abuse in those with high-risk maternal profile and their neonates should be closely watched for features of neonatal abstinence syndrome. Alternative methods of toxicology screening apart from urine need to be evaluated in order to improve the drug detection rate.

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Key words: High-risk maternal profile, Neonatal abstinence syndrome, Substance abuse, Toxicology screening

* Consultant

** Senior Registrar

*** Head and Senior Consultant

Department of Neonatology

KK Women's and Children's Hospital

Address for Reprints: Dr P Agarwal, Department of Neonatology, KK Women's & Children's Hospital, 100 Bukit Timah Road, Singapore 229899.