Pregnancy in an Intravenous Drug User - Problem of Obstetric Management

Surg Cdr Sushil Kumar*, Surg Lt Cdr S Chaudhary*, Surg Lt Deepthi*, Surg Cdr ZK Antony**, Surg Cdr S Guha**

MJAFI 2003; 59 : 159-160

Introduction

Drug abuse in pregnancy is already known to be a major health hazard in the developed countries. The American College of Obstetricians and Gynaecologists estimates that 10% is the minimum prevalence of substance abuse in pregnancy. Club culture, music and social atmosphere have profoundly influenced the use of drugs by teenagers and teenage pregnant mothers in the west. Fortunately in India, we rarely come across a pregnant patient with history of substance abuse (not counting alcohol and tobacco). Alcohol and tobacco may cause certain problems for the fetus but obstetric management is not as difficult as in case of intravenous (IV) drug users. We are reporting one such case.

Case Report

A 32 year old third gravida, belonging to medical profession, reported to gynaecology OPD for the first time at 28 weeks of pregnancy on 30/6/01 (EDD-22/9/01). Her only complaint was gross edema of feet. On examination she looked very pale (Hb 6 gm%), BP was 170/102 mmHg, whole body was oedematous and showed multiple ecchymotic patches. The clinical picture led to the suspicion of HELLP syndrome. Investigations revealed a normal blood count, platelet count, bleeding time, clotting time, liver enzymes and serum creatinine. The peripheral smear showed only microcytic hypochromic anaemia without evidence of haemolysis. Investigations almost ruled out the possibility of HELLP syndrome. Meanwhile the nursing officer of the ward reported considerable difficulty in drawing blood samples since most of the veins were thrombosed. Thrombosed veins along with the strange behaviour of the patient raised the doubt of the possibility of drug addiction in the patient. On repeated history taking the patient confided that she had been on a combination of intravenous Fortwin (Pentazocine) and Avil (Pheniramine maleate) for a few years. Psychiatric consultation was requested which revealed that the patient had been admitted in the hospital as a case of drug addiction in March 1999. Though she used to take 20 ml (600 mg) Fortwin and 4 ml (45 mg) of Avil daily, she claims of having reduced the dose and frequency of the

combination during this pregnancy to 2 ml (60 mg) IM Fortwin and 2 ml (22.75 mg) Avil daily. The patient was put on Tab Phenobarbitone, Tab Avil, Tab Dispirin and Tab Aldomet (alpha methyl dopa). She could not tolerate oral iron therapy and was put on injectables. Her Hb level increased to 8.6 gm% after one month of treatment and blood pressure was maintained between 140/90 mm Hg - 160/100 mmHg. The fetus was monitored by non stress test (NST) and biophysical profile (BPP). BPP at this stage was 5/10. Considering pregnancy induced hypertension (PIH) and jeopardized fetal well being, it was decided to terminate the pregnancy. Cerviprime (Dinoprostone gel) was instilled to make the cervix favourable for delivery. The patient developed good labour pains and on 01/08/01 she delivered a live male baby weighing 2.3 kg with an Apgar score of 6/10 at 1 min and 8/10 at 5 min. The baby was transferred to NICU to be kept under observation.

Following the delivery of the baby, the patient had a torrential bleed from the uterus even before the placenta was expelled. The only IV access obtained through a thin vein prior to delivery got blocked. Phlebotrombosis along with generalized oedema aggravated the problem of inaccessibility of the veins. Venous cut down tried by the surgeon was also unsuccessful. Uterine bleeding was finally controlled with multiple intramuscular injections of methergine and prostadin (PGF2alpha). Hb dropped from 8.8gm% (before delivery) to 4.4 gm% (after delivery). In order to give blood transfusion, multiple attempts were made to gain access to the subclavian vein, which failed, and finally a catheter was introduced into the internal jugular vein under the guidance of fluoroscopy. Six pints of packed cell transfusion were given and her haemoglobin level increased to 9gm%.

Neonatal details : 2.3 kg male baby was observed in NICU for drug withdrawal syndrome. Neonate had irritability, increased jitteriness, high-pitched cry, excessive hunger and temperature instability during initial four days of life. For fever, septic screen was sent and it was normal. The neonate was managed symptomatically with rocking of the cradle and pacifier. The neonate settled down by day four and is asymptomatic now. The drug levels in meconium and neonatal urine could not be tested, as facilities are not available locally.

*Classified Specialists (Obstetrics & Gynaecology), *Graded Specialist (Pediatrics), *Medical Officer, **Graded Specialist (Psychiatry). INHS Sanjivani, Naval Base, Kochi - 682 004.

Discussion

In India, substance abuse (intravenous drugs) during pregnancy is a rare occurrence except in Northeast. The reason for this could be non-accessibility to the drugs. However, the drugs are easily available to the members of medical profession and therefore they can easily get addicted, like this patient. The patient got addicted to the drugs which were easily available to her, like Fortwin and Avil. Almost similar combination of drugs (pentazocin and over the counter antihistaminic tripeleennamine) are known as 'T's and blues' among the drug users in the west. Since 1972 this mixture gained popularity as less costly substitute to narcotics. Effects of "T's and blues" abuse by pregnant women have been reported only in 86 women [1-3].

Antenatal fetal monitoring is difficult in these patients. NST is commonly non-reactive and even beat-to-beat variability could be less marked. Biophysical profile is less affected and usually is normal except for reduced fetal activity [4].

Infants are likely to suffer from growth retardation and withdrawal symptoms. The withdrawal symptoms begin within first day or two of life. Symptoms are quite characteristic : irritability and hyperactivity, increased tremors, high pitched cry, excessive hunger and salivation, sweating, nasal stuffiness, temperature instability and regurgitation. Opioids have been amounted with higher incidence of congenital malformation [5]. However, increased congenital anomaly rates have not been reported with this combination [6]. The neonate had mild withdrawal symptoms in the form of irritability, hyperactivity, high pitched cry, excessive hunger, salivation and sweating,

nasal stuffiness, fist sucking and temperature instability. The neonate responded to supportive care with swaddling, pacifier, normal saline nasal drops and quiet, low light environment.

Repeated non-sterile injections over years destroy peripheral veins often leaving track marks (thrombosed and fibrosed veins). Venous access is generally very difficult even if the woman has stopped injecting years before [4]. In this case too, there was no patent IV line when it was most needed. Venesection was of no use since most of the veins were thrombosed, even subclavian vein could not be catheterized at the time of need. Finally, a catheter was placed in internal jugular vein and three litres of blood transfused to save the patient. The lesson learnt from this experience is that, when these patients go into labour, it is ideal to place a central IV line to avoid last minute complications.

References

1. Chasnoff IJ, Hather R, Burns WJ. Pentazocin and tripeleennamine (T's and blues)-effect on fetus and neonates. *Dev Pharmacol Ther* 1983;6:162-4.
2. Little BB, Snell LM, Glistep LC, Breckenridge JD, Knoll KA. Effects of T's and blues abuse during pregnancy on maternal and infant health status. *Am J Perinatol* 1990;7:359-60.
3. Von Almen WF, Miellr JM. "T's and blues" in Pregnancy. *J Reprod Med* 1984, 31:236-8.
4. John Studd. Drug use in pregnancy in *Progress in Obstetrics and Gynaecology* 14th Vol, Harcourt Publishers Ltd 2000;8:128-9.
5. Meherban Singh. *Perinatal Pharmacology - Care of the Newborn*, Sagar Publication 4th ed, 1993;6:77-8.
6. Drugs and Medications. In : Cunningham FG, MacDonald PC, Gant FN, Kenneth JL, Gilstrap LC, Hankins GD. editors. *Williams Obstetrics*, 20th ed, Prentice Hall International, Inc. USA, 1997;41:957-61.