Efficacy and Safety of Buprenorphine Maintenance Therapy during Pregnancy: A Case Report

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The misuse of opioids during pregnancy has been associated with maternal, fetal and neonatal risks. Buprenorphine substitution has not been proven teratogenic during pregnancy. This case report highlights a multipara female who gave birth to four children while using Buprenorphine. All of her children were exposed to buprenorphine during pregnancy and they all appear healthy and have met normal developmental milestones. As such, a case can be built supporting the notion that the use of opioid maintenance treatment at the time of conception and during pregnancy is not likely to have negative effects on pregnant women or newborns. In this case, measurements such as the week of delivery, birth weight, height, umbilical acid-base balance and neurodevelopment were unaffected. Thus, the prognosis of using Buprenorphine during pregnancy is favourable. Medical professionals should be advised about the benefits of opioid maintenance treatment in pregnancy and educated about the potential results related to this treatment.

Pregnancy; Buprenorphine; Opiate addiction; Neonatal risks

OMT: Opioid Maintenance Treatment; ORL-1: Opioid Receptor-Like; NAS: Neonatal Abstinence Syndrome

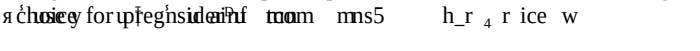
Background

Misusing opioid drugs during pregnancy has been associated with many risks among mothers and neonates. Opioid Maintenance Treatment (OMT) with either methadone or buprenorphine, has become the treatment of choice for pregnant women who are opioid-dependent to prevent complications associated with narcotic withdrawal, facilitate prenatal care, reduce drug-related criminal activity and help patients to avoid other risks associated with the drug culture [1-3].

Buprenorphine Substitution seems to be safe during pregnancy and non-teratogen [4,5]. A literature review supports our hypothesis that the use of opioid maintenance treatment at the time of conception and during pregnancy is not likely to have negative ewects on pregnant women or newborns. Hxe Neonatal Abstinence Syndrome (NAS) induced by buprenorphine is of much less intensity and lasts a much shorter duration when compared to methadone, which might be explained the partial agonist and antagonist activities of buprenorphine compared to pure agonist action of methadone or heroin [4-6]. In addition, Buprenorphine activates the Opioid Receptor-Like (ORL-1) receptor which counteracts the actions of morphine [6].

Some organizations are advocating that buprenorphine should be used as a potential Ẑrst-line medication for pregnant opioid-dependent women who are new to treatment [6]. Factors to consider in making this choice include patient's preference and availability of comprehensive obstetrical and substance abuse care [6].

Buprenorphine treatment of maternal opioid use during pregnancy shows a lower risk of preterm birth, greater birth weight and larger head circumference when compared with methadone treatment and no greater harms [7]. Buprenorphine is recommended as the drug of



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