

A case study describing a pregnancy with extreme suprathreshold pregabalin use.

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Introduction

Pregabalin is an approved treatment for neuropathic pain syndromes, fibromyalgia, partial-onset seizures and generalized anxiety disorder. Its potential for misuse and addiction is increasingly recognised, particularly in individuals with a history of opioid abuse¹.

Pregabalin is classified as Category B3 by the Therapeutic Goods Administration, due to its limited use in pregnancy and subsequent limited data on its effect on pregnancy outcomes. Current literature suggests possible increased risk of major birth defects, increased rates of spontaneous abortion and preterm birth. However, all current studies are affected by small sample sizes and no adverse outcomes have been proven with statistical significance^{2,3}.

Animal studies in mice have demonstrated possible interference to neurogenesis with exposure to pregabalin during early brain development⁴.

Case

A 28-year-old female (G6P1) previously known to the hospital's Addiction Medicine service for pregabalin use disorder, opiate use disorder (in sustained remission with monthly buprenorphine depot) and intermittent methamphetamine use, presented for antenatal review at 31-weeks after returning from a period of living interstate.

Prior to the index pregnancy, the patient relocated to a capital city where she accessed large quantities of pregabalin via multiple prescribers and dispensing pharmacies. Use of up to 6000mg daily was reported during the pregnancy.

Reconnecting with local Addiction Medicine services, she had an elective admission at 31+6/40 for controlled dose reduction to 300mg BD with tapered diazepam to treat withdrawal symptoms.

Her first ultrasound at the local hospital was significant for breech presentation and an elevated umbilical doppler. There was normal growth, normal MCA doppler and normal liquor.

Monitoring occurred with fortnightly growth ultrasounds, planned weekly obstetrics review (with varied attendance) and regular Addiction Medicine appointments. Her pregabalin use prior to delivery was 150mg/75mg/150mg daily.

At 38+0 there was a drop in growth from 32nd to 20th percentile and new oligohydramnios with SDP 3.92cm. UAPI and MCA dopplers were not elevated.

An elective caesarean section was booked at 39+3/40 however due to spontaneous labour and rupture of membranes with meconium-stained liquor at 39+2/40, this was performed as an emergency. There were no signs of fetal distress prior to delivery.

The live female infant was born in good condition with APGARS of 8,9,9. The neonate had a planned admission to special care nursery for Neonatal Abstinence Syndrome observations. Birth Weight was 2996g (14th percentile). Length 48.5 (21st percentile), HC 34.5 (64th percentile). Peak modified Finnegan score was 6 at 36 hours of life. Neonatal examination noted no abnormalities.

Mother and baby were discharged from hospital on day 7 with ongoing social work and addiction medicine support. The infant was to be followed up by the local pediatric department.

Discussion & Conclusion

With concurrent use of buprenorphine depot, tobacco and intermittent methamphetamines, it is difficult to comment of the exclusive effect of Pregabalin use on pregnancy outcomes in this case.

There is minimal data regarding any pregabalin use in pregnancy and even more so high dose exposure and its relationship to adverse pregnancy outcomes. This case demonstrates a pregnancy, with high dose pregabalin use, carried to term with short-lasting moderate withdrawal symptoms in a female infant with a birthweight on the 14th percentile and no abnormalities noted on neonatal exam.

Considering pregabalin's increased prevalence as a drug of misuse and addiction, this case report adds meaningfully to the literature regarding pregabalin use and pregabalin use disorder during pregnancy.

References

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