Successful Pregnancy in Patient with Multiple Sclerosis and Intrathecal Baclofen Pump: A Case Report

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Abstract

The use of Intrathecal Baclofen Pumps (ITBP) for spasticity in patients with Multiple Sclerosis (MS) has been widely reported[1]. Successful pregnancies and subsequent deliveries in patients with an implanted ITBP have been cited several times in the literature[2,4] However, there remains a lack of available knowledge on the incidence of successful pregnancies and deliveries in Multiple Sclerosis patients who also have an ITBP[3]. The following case report details a single patient with Multiple Sclerosis and an ITBP, who successfully carried and delivered two viable and healthy infants.

Introduction

Spasticity is a complicated and debilitating symptom frequently accompanying patients with Multiple Sclerosis. The ITBP is an implantable medication pump that delivers a continuous dose of baclofen into the Intrathecal space of the spine, and is a treatment option for patients who have failed oral therapy or have difficulty tolerating the side effects associated with oral medication. The use of Intrathecal baclofen pumps in pregnancy is extremely rare. This case report details a multigravida, multipara patient with Multiple Sclerosis and concurrent ITBP therapy who experienced two successful pregnancies and deliveries.

Case Report

Pregnancy #1

Patient was 35 y.o. at time of natural conception. Birth control and MS therapy (dalfampridine and monthly IVIG) were discontinued one month prior to conception. Patient had 19 year history of Multiple Sclerosis at time of conception and a history of a broken pelvis s/p MVA 8 years prior. EDSS at start of pregnancy was 7. Prior failed MS treatment included Interferon and Natilizumab therapy. Pregnancy medications included prenatal vitamins and Intrathecal baclofen , which was delivered via Medtronic Synchromed II device at a rate of 219.mcg/day. ITBP was located in the lower right abdomen and was implanted 3 years prior to pregnancy. Her pregnancy course was uneventful until spontaneous premature rupture of membranes (SPROM) occurred at 34 5/7 weeks. Due to uncertainty of Intrathecal catheter location at the delivery hospital, patient was placed under general anesthesia. A healthy 6 pound female was delivered via low transverse cesarean section with APGAR scores of 8 and 9 at 1 and 5 minutes respectively. Patient had uneventful post-partum course and resumed therapy with monthly IVIG 6 months post delivery.

Pregnancy #2

Patient was 39 y.o. at time of conception via intrauterine insemination. IVIG, dalfampridine, Modafinil, and vitamin D therapy was discontinued 4 months prior to fertilization. Pregnancy medications included prenatal vitamins and Intrathecal baclofen At 6 weeks gestation, patient presented to MS clinic with complaints of increased LE spasticity. ITBP dose was increased 10% to 241.8mcg/day. Patient experienced vaginal yeast infection at 12 weeks . At 34 weeks, patient presented to MS clinic with complaints of increased LE spasticity and weakness. With consent of her OBGYN, patient received 3 days of IV Solumedrol (1000mg/day) for presumed MS relapse. The pregnancy course was complicated by LE edema and iron deficiency anemia. Oral iron supplementation was continued throughout pregnancy. At 36 weeks, patient experienced SPROM. Patient received epidural anesthesia and subsequent repeat low segment transverse cesarean section. A healthy 6 pound 8 ounce female with APGAR scores of 8 and 9 at 1 and 5 minutes respectively was successfully delivered. Postpartum course was uneventful. Patient resumed MS therapies 7 months post delivery.

Pregnancy	Gestation	Weight	Delivery	Apgar score	ITBP dose	Relapse
#1	34 5/7 weeks (SPROM)	6 lb	C-section with general anesthesia	8 and 9	219mcg/day	No
#2	36 weeks (SPROM)	6 lb 8 oz	C-section with epidural anesthesia	8 and 9	241mcg/day	Yes -34 weeks

Conclusions

This case study demonstrates that successful gestational outcomes are possible in MS patients whom also have an ITBP for the treatment of severe spasticity. It is important to continue to document successful outcomes in this specific population in order to better educate and advise pregnant individuals with both MS and ITBP.

References

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