Type of obstetric anesthesia/analgesia does not affect disease course in multiple sclerosis parturients: 10-year retrospective trial

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Background: Multiple sclerosis often occurs in young women and the effect of obstetric anesthesia/analgesia on the disease is poorly understood. No previous study has investigated disease course of labouring women in the Czech Republic. We aimed to describe occurrence or absence of relapses in 6-month postpartum period in parturients with and without obstetric anesthesia/analgesia.

Methods: We retrospectively studied all deliveries in University Hospital Brno in years 2004-2013 (n = 58,455) and identified those of the women with ICD-10 code G35 (MS) recorded anytime in their medical history (n = 428). We included only deliveries of women with confirmed diagnosis at time of labour (n = 70). Statistic analysis was performed by Fischer Exact Test.

Results: We studied 70 deliveries of 65 women, including 45 vaginal deliveries and 25 Cesarean deliveries (16 in general anesthesia, 8 in epidural anesthesia and 1 in spinal anesthesia). Epidural obstetric analgesia was performed in 11 deliveries. There was no statistically significant difference in relapse occurrence in groups of vaginal delivery (n = 15; 33%) and Cesarean section (n = 10; 40%), p = 0,611. This finding corresponds with outcomes of recent studies showing no significant difference in the rate of relapse between women with obstetric anesthesia/analgesia and those without it.

Conclusion: Type of delivery and type of obstetric anesthesia/analgesia does not alter multiple sclerosis course in 6 months postpartum.

Fig. Flow Diagram illustrating patient recruitment into the study

Tab. 1: Relapse Occurrence (RO) incidence in group of: vaginal delivery and C-section;

		Vaginal Delivery	Cesarean Section	p value
Number of Cases	70	45	25	
RO in 0-3 months	18 (25.7 %)	10 (22 %)	8 (32 %)	0.403
RO in 4-6 months	13 (18.6 %)	6 (13 %)	7 (28 %)	0.199
RO in 0-6 months	25 (35.7 %)	15 (33 %)	10 (40 %)	0.611

Tab. 2: Relapse Occurrence (RO) incidence in groups of: vaginal delivery according to presence or absence of EOA; C-section according to type of anesthesia;

	EOA	Without EOA	p value	CS in GA	CS in RA	p value
Number of Cases	9	36		16	9	
RO in 0-6 months	2 (22 %)	13 (36 %)	0.695	7 (44 %)	3 (33 %)	0.691

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