PW01-14 - **LITHIUM PLACENTAL PASSAGE AND PERINATAL OUTCOME: CLINICAL MANAGEMENT DURING LATE PREGNANCY**

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Introduction: Despite lithium has been used for the last 50 years as a maintenance treatment for bipolar disorder during pregnancy, there is limited information about perinatal clinical outcomes from fetal exposure to lithium.

Objectives:

1. To quantify the rate of lithium placental passage

2. To assess any association between plasma concentration of lithium at delivery and perinatal outcome.

Methods: Observational and prospective study. Subjects: Women in maintenance treatment with lithium, being attended during pregnancy at the Perinatal Psychiatry Programme of Hospital Clínic (Barcelona, Spain) between 2007 and 2009. Procedure: We assessed sociodemographical data; dose/day of lithium carbonate; other drugs doses; plasmatic concentration of lithium carbonate in maternal blood intrapartum and in the umbilical cord; obstetrical maternal complications; gestational age at delivery; weight at delivery; Apgar scores; congenital malformations; hospital stays, infant serum concetrations of thyroid-stimulating hormone.

Results: Eight mother-child diads. Mean age of the mother (SD): 32.1 (4,7); 100% caucasian and married. Mean dose of maternal lithium (SD): 675mg (237,5mg). Premature rupture of membranes (%):25. Gestational mean age (in weeks) (SD): 39,9 (1). Birth weight (SD) : 3625gr (451,2gr); Mean $Apgar_{1min}$ (SD): 8,38 (1,1); Mean $Apgar_{5min}$ (SD): 9,75 (0,4). Loss of fetal intrapartum wellness (%): 12,5. Days of hospitalization (mean) (SD):9,5(16,6). Lithium plasmatic concentration (mEq/L), mean (SD): maternal 0,45(0,1), umbilical cord 0,33(0,1), lithium ratio uc/m 0,93 (0,3); infant TSH µU/mL mean (SD): 4,9(4,6).

Conclusions: Lithium placental passsage was 0,93 (0,63-1,07). ≤At umbilical cord lithium levels ≤ 0.60 mEq/L, we didn´t have any preterm deliveries, low birth weight newborns, nor neonatal complications.

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