XXXIII CONGRESO ANUAL SAN 2018 CORDOBA – ARGENTINA 24 AL 26 DE OCTUBRE

P237.-ALCOHOL NEUROTOXICITY EFFECT IN SPATIAL MEMORY. OMEGA 3 AS A PROTECTIVE FACTOR

Rocío Scaramuzza, Ana Laura Subires, Paula Abate, Verónica Balaszczuk

Instituto de Investigaciones Psicológicas. CONICET-UNC

Presenting author: **Verónica Balaszczuk**, *verokbk@yahoo.com.ar*

Literature shows that prenatal alcohol exposure have teratogenic effects on brain structure and occasioned long lasting cognitive and behavioral disturbances including attention deficit and deficits in memory. Omega-3, the essential fatty acids found in fish oil could have protective effects against ethanol-induced neurotoxicity.

The aim of this study was to explore the acute alcohol long term effects in spatial memory in infant rats, and study the potential protective effects of Omega 3 against these effect. Method. A 20% solution of ethanol in saline was administered to postnatal day 7 (PND) Wistar rats in two separate treatments, 2 hours apart, each treatment delivering 2.5 g/kg (sc); control rats were treated with saline only. Another group was administered with one dose of Omega3 (720mg/kg, ig) 15' after the last alcohol injection. Spatial memory was analyzed in the Barnes test on PND 20 and 30. Results. Acute ethanol exposure at PND 7 had long-lasting consequences. Preliminary data show that a single dose of Omega3 did not reverse these alcohol effects. Discussion. This is the first study to demonstrate that acute ethanol exposure occasioned spatial memory alterations that persist in the offspring. Protective propriety of Omega3 warrants further investigation. The knowledge about teratological effects induced by maternal alcohol intake a is critical for an effective prevention in vulnerable population.