Prefrontal cortex excitability in early postnatally malnourished rats

Ruiz, Samuel

Perez, Hernan

Hernandez, Alejandro

Ramirez, Maritza

Fernandez, Monica

Soto-Moyano, Ruben

The effect of early postnatal malnutrition on the responsiveness of the rat prefrontal cortex was studied by determining excitability thresholds and fatigability to direct cortical stimulation. Malnutrition imposed during the period of rapid brain growth caused a significant increase of cortical chronaxie values as well as increased fatigability of direct cortical responses, indicating a detrimental effect on the axodendritic synapses. Since the prefrontal cortex plays an important role in the temporal organization of behavior, a dysfunction of this cortical area could be a causal link between nutritional and behavioral deficits.