## Endogenous progesterone is associated to amyotrophic lateral sclerosis prognostic

**factors.** <u>Gargiulo Monachelli G</u>, <u>Meyer M</u>, <u>RodrÃguez GE</u>, <u>Garay LI</u>, <u>Sica RE</u>, <u>De Nicola AF</u>, <u>GonzÃilez</u> Deniselle MC

201101 123(1):60-7 Language: eng Country: Denmark Laboratory of Neuroendocrine Biochemistry, Instituto de Biología y Medicina Experimental, CONICET, Buenos Aires, Argentina Neurology Department, J.M. Ramos Mejia Hospital, Buenos Aires, Argentina Department of Human Biochemistry, School of Medicine, University of Buenos Aires, Buenos Aires, Argentina Department of Science and Technology, School of Medicine, University of Buenos Aires, Buenos Aires, Argentina.

Gargiulo Monachelli G, Meyer M, Rodríguez GE, Garay LI, Sica REP, De Nicola AF, González Deniselle MC. Endogenous progesterone is associated to amyotrophic lateral sclerosis prognostic factors. Acta Neurol Scand: 2011: 123: 60-67. © 2010 John Wiley & Sons A/S. Negative prognostic factors in amyotrophic lateral sclerosis include advanced age, shorter time from disease onset to diagnosis, bulbar onset and rapid progression rate. Objective - To compare progesterone (PROG) and cortisol serum levels in patients and controls and ascertain its relationship to prognostic factors and survival. Methods - We assessed serum hormonal levels in 27 patients and 21 controls. Results - Both hormones were 1.4-fold higher in patients. PROG showed a negative correlation with age, positive correlation with survival and positive trend with time to diagnosis. Increased PROG was observed in spinal onset and slow progression patients. No correlation was demonstrated with cortisol. Conclusion - Increased hormonal levels in patients are probably due to hypothalamic-pituitary-adrenal axis activation. Nevertheless, in this preliminary report only PROG correlated positively with factors predicting better prognosis and survival. We hypothesize endogenous PROG and cortisol may be engaged in differential roles, the former possibly involved in a neuroprotective response.