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**Sex differences in somatic and sensory motor development after neonatal anoxia in Wistar rats.**

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**Highlights**

- - Although neonatal anoxia affects both sexes, few studies focus on sex differences
- - Results showed sex dependent alterations in development after neonatal anoxia
- - Observed deficits could be related to reduced number of cells in sensorimotor cortex
- - These results will address further studies of strategies to minimize anoxia effects

**Abstract**

Currently, one of the important causes of brain injury in new-borns is the neonatal anoxia which impacts the perinatology services worldwide. Animal models of anoxia have been used to assess its effects at cellular and behavioural levels in all ages, but few studies focus on sex differences. This study aimed to investigate some physical parameters of development, sensorimotor alterations, early neurological reflexes as well as the density of cells in motor and sensorimotor cerebral cortex of adolescent rats submitted to neonatal anoxia. The results presented significant differences in most of the evaluated parameters, such as body weight and length, medio-lateral head axis, eruption of superior incisor, palmar grasp, auditory startle,

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