CEBUS APPELLA: AN EXPERIMENTAL MODEL TO STUDY PARKINSON'S DISEASE?


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Introduction: Despite Cebus apella has been used in many neuroscience studies, until now, none study tried to establish this primate as an experimental model of Parkinson’s Disease (PD). In summary, we shown the first results of an acute model of PD in Cebus apella.

Aims: Evaluate the possible use of Cebus apella as an experimental model of PD.

Methods: A specimen of Cebus apella bred in CENP/IEC/SVS/MS (Brazil), male, 9 years old, was injected with 0.3 mg/kg (IM) of MPTP during 10 days, with 3 days of interval between injections. Clinical (blood count, serum biochemistry, temperature, hearth rate and breath frequency,) and behavioral tests (frequency of responses for a resolution of the task, interest for the task and aspects of memory (Fig. 1) were conducted before and after administration of MPTP.

Results: There was no statistical difference between the clinical parameters before and after MPTP injections. The symptoms and behaviors observed were: stereotyped movements, tongue ptosis, stiff tail, sudden drop and momentary of the performance in tasks.

Conclusions: Cebus apella could be a useful experimental model of PD. However, first is necessary to establish a reproductivity and standard protocol for PD model in this New World Primate.
[Cebus apella using a tool to evaluate PD symptoms]