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**ABSTRACT**

Rotarod test was used to evaluate the effect of LPS treatment on motor performance during aging process between genotypes.

**PROTOCOL**

To test motor performance, we used the accelerated Rotarod (five-lane accelerating rotarod; Ugo Basile, Comerio, Italy), a motor behavioral test widely used to assess motor deficit in neurodegenerative disease models in rodents. Mice have to keep their balance on a horizontal rotating rod (diameter, 3 cm) and rotation speed is progressively increased every 30 sec by 4 rpm.To start the trials, the mice (five mice are tested at the same time) are placed on a rotating rod; when the mice fall down or when 5 min are completed, a switch is activated that automatically stops a timer. On the day of testing, the mice perform 5 trials, separated by an interval of 30 min between each trial. Before the test, WT and G2019S within the different treatment groups were housed five per cage and acclimated to a 12h shift in light/dark cycle so that the exercise occurred during the animal normal wake period. The Rotarod performance was assessed at day -7, 0 days, and during NaCL/LPS injection paradigm, at monthly intervals, for the determination of motor deficit.