DEPRESSION SCORE AFTER MATERNAL AGGRESSION AND LITTER SEPARATION.

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Introduction: The aim of this study was to evaluate the possible depressive-like behavior of mothers after manipulating their litters and after exposure to an intruder male. Methods: 92 female Wistar rats and their litters were used. On postpartum day 1, the litter was culled to 8. On postpartum days 5 to 7, the mothers were submitted to a 15 min forced swimming test (FS) session. 24h later, they were tested in a 5 min FS and the total immobilization time measured as an index of depression. The experimental manipulations (maternal separation and the presence of an intruder) took place 3h before the second FS session: maternal separation was absent (control-NSEP), total (TSEP-dam and litter in different home cages) or proximal (PSEP-dam and litter without physical contact in the same home cage). The intruder was used to evaluate maternal aggression (aggressive x non aggressive). The mothers were divided into 8 groups: G1) control; G2) TSEP; G3) mother in contact with its own litter plus a different litter in proximal separation; G4) PSEP; G5) Aggressive and TSEP thereafter; G6) Non aggressive and TSEP; G7) Aggressive + NSEP; G8) Non aggressive and NSEP thereafter. Results: The mean percentage immobilization time (s) were as follows: G1) 52.3±6.9 (11), G2) 52.6±4.4 (15), G3) 56.3±5.5 (13), G4) 72.2±6.5 (10), G5) 64.5±4.5 (11), G6) 59.2±7.4 (9), G7) 44.3±6.1 (13), G8) 42.6±5.6 (10). Proximal separation significantly increased the percentage time of immobilization when compared to no separation (pDiscussion and Conclusions: The highest score of maternal depression was seen after the proximal separation. Fight, followed by litter separation, was responsible for the second higher immobilization time.