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Growth and Motor Activity in the Progeny of Adolescent Rats

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Aim. To test the hypothesis that the progeny of adolescent rats differs in body weight and motor activity from the offspring of adult rats.
Method. The progeny of adolescent (age, 50-55 days) and adult parents (age, 90-95 days) were counted at delivery and weighed at the age of 1, 28 and 79 days. Their physical strength and motor coordination were tested on a rotarod treadmill immediately after weaning (28 and 29 days of life) and again in adulthood (79 and 80 days of life).
Results. Adolescent dams delivered fewer but heavier pups than control dams. The 28 and 79 day-old offspring of adolescent parents weighed less than control offspring. Subjected to two consecutive days of testing (conditioning and testing trials, respectively) the ability to keep their balance on the rotarod treadmill, the 28- and 29-day-old offspring of adolescent parents had superior scores in comparison to the controls ($p<0.05$ for both comparisons). The difference disappeared at the age of 79-80 days.
Conclusion. The offspring of adolescent parents has slower body growth but shows better performance at the rotarod treadmill at weaning.

Key words: adolescence; body weight; motor activity; pregnancy, animal; rats