The Effect Of Melatonin On The Pregnant Rats

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Introduction
There is no report of the melatonin effect on the pregnant rats. So, we investigate the weight of the infant rat after delivery with the melatonin injection to the mother rat.

Material and method
After mating, we injected melatonin (20 micro g/body) on the pregnant SD rats for 25 days. (Group A: on the morning injection n=3, Group B: on the evening injection n=3, Group C: control n=3) We checked the infant rat weight after delivery, every day for 25 days.

Result
All the rats delivered in the same day. The infant rat weight of group B was bigger than the weight of group C on the delivery day (P<0.01). For the 2 weeks from the delivery day, the infant rat weight of group B had been bigger than the weight of group C (P<0.01). But after 2 weeks from the delivery day, there was no difference between 3 groups.

Discussion
In the prior experiment, we reported that the melatonin secretion of RSA was small than the secretion of the control. In this experiment, we reported the melatonin effect during pregnancy. It was said that the SD rats nurse the infant rat for 2 weeks after delivery. And in this experiment, we reported that the weights of the infant rats with melatonin injection were bigger than the weights of the control infant rats for the 2 weeks after delivery. So we think that melatonin affect on the infant till nursing period. And we think we should investigate the reason of this.
total urine of the day

Infant rat weight of the day of delivery

Infant rat weight of the 4th day after delivery

Infant rat weight of the 9th day after delivery

Infant rat weight of the 19th day after delivery

Infant rat weight of the 30th day after delivery

Infant rat weight of the 39th day after delivery