



4th International Congress of Turkish Neuroendocrinology Society | ISTANBUL

26 | 28
November
2020



Effects of Ramelteon on the contraction of myometrium in rats

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Poster # PC40



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AIM:

- Ramelteon is a melatonin MT1/MT2 receptor agonist, which is used especially in the treatment of sleep disturbance
- In this study, we aimed to investigate the effects of ramelteon on uterine contractions.

METHODS:

- *Sprague-Dawley* female rats were used in the study (n=7).
- Longitudinal myometrium strips (12mmx2mmx1mm) were placed in an isolated organ bath by applying 1 g of tension in krebs solution, and isometric contractions were recorded.
- Following the regulation of spontaneous contractions, 0.5 μ M and 1 μ M doses of the ramelteon were administered as a double dose at 60 min intervals and monitored for 30 minutes.
- Statistical analyses were performed using the Paired Sample t-Test.

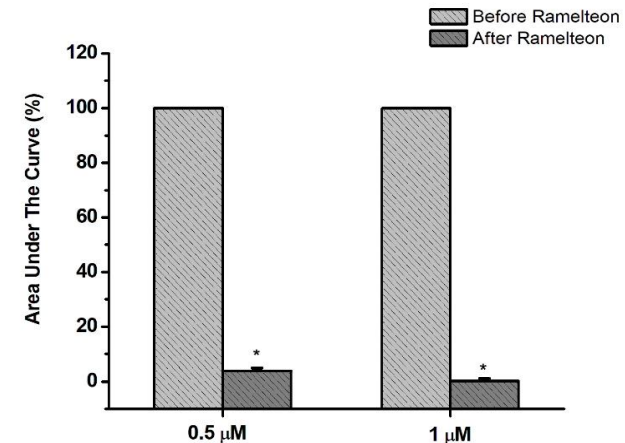
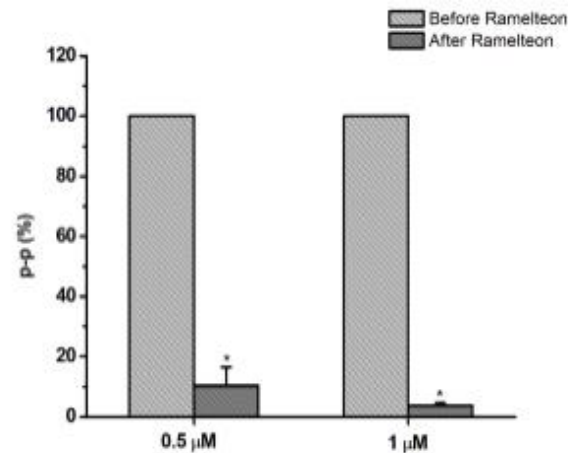
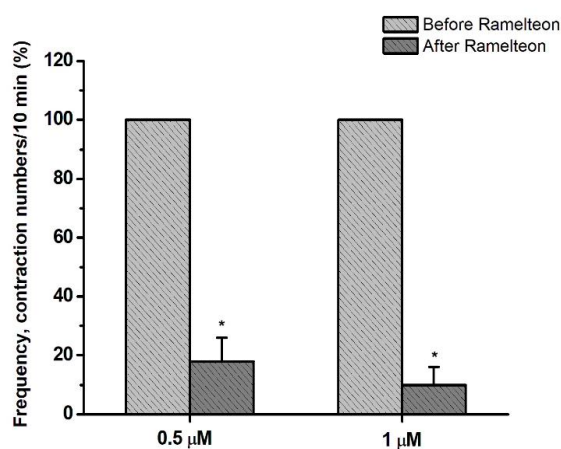


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RESULTS:



- Ramelteon known as melatonin agonist decreases the frequency value by 83.1%, peak to peak (p-p) value by 90% and amplitude value by 97% after the application of 0.5 μM dose.
- In ramelteon treatment at 1 μM dose, it decreased the frequency value by 90%, p-p value by 97% and area value by 100% (statistically, $p < 0.001$).



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CONCLUSION:

- It is thought that ramelteon, which is used in the treatment of sleep disorder and can be used in pregnancy, shows its inhibitory activity on uterine contractions over MT1/MT2 receptors such as melatonin.
- Ramelteon is recommended for use during pregnancy, taking into account its inhibitory effect on uterine contractions.