

Effect of Melatonin Implants on Feline Puberty and Estrous Cycle

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The aim of this study was to test the efficacy and safety of a long-term release melatonin formulation on feline estrous cycle and puberty postponing. Two experiments were conducted. In the first study, 24 postpubertal early interestrous females were randomly implanted with melatonin (18 mg/cat sc; Melovine®, CEVA; ME, n=12) or a sc placebo (PL, n=12). In the second study, 11 prepubertal queens (120 ± 20 days old, 1.5 ± 0.2 kg) were randomly assigned to the same ME (n=7) and PL (n=4) treatments. In the first study, interestrous intervals in ME and PL groups were 83.7 ± 14.2 vs. 22.7 ± 3.1 days ($p < 0.01$), respectively. In the second experiment, neither age at puberty (218.6 ± 16.6 vs. 218.5 ± 46.8 days; $p > 0.1$) nor body weight (2.3 ± 0.2 vs. 2.3 ± 0.4 ; $p > 0.1$) differed between ME and PL groups, respectively. None of the cats presented side effects.

It is concluded that this melatonin formulation caused short-term prolongation of the interestrous intervals without apparent side effects but did not postpone puberty in domestic cats.