

Both melatonin and meloxicam improved sleep and pain in females with primary dysmenorrhea-results from a double-blind cross-over intervention pilot study



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ABSTRACT

Up to 25% of ovulating women suffer from primary dysmenorrhea, a condition associated with pain and transient-reduced quality of life, along with greater irritability and impaired sleep. In the present study, we asked whether and if so to what extent melatonin and meloxicam can improve subjective and objective sleep and reduce pain among women with primary dysmenorrhea (PD). To this end, we conducted a double-blind cross-over clinical trial lasting for three menstrual cycles. A total of 14 women (mean age $M=27.5$ years) with primary dysmenorrhea took part in the study. At baseline, that is, during the first menstruation, they completed a visual analogue scale to rate pain; sleep continuity was assessed via actigraphs, and overall sleep quality was assessed with the Pittsburgh Sleep Quality Index (PSQI). Next, participants were randomly assigned to one of two conditions, either melatonin during the second, and meloxicam during the third menstruation, or meloxicam during the second, and melatonin during the third menstruation. Neither participants nor investigators were aware of participants' study assignment. During the second and third menstruations, the assessments described above were repeated. At baseline, sleep assessed both objectively and subjectively was impaired, and pain was high. Subjective sleep improved and pain decreased during the second and third menstruations irrespective of whether melatonin or meloxicam was administered first or second. Likewise, objective sleep efficiency increased and objective sleep latency shortened. The efficacy of melatonin was superior to that of meloxicam. The present pattern of results suggests that both melatonin and meloxicam are suitable to treat pain and PD-related sleep complaints among women with primary dysmenorrhea.

BIOGRAPHY

Khazaie H has completed his MD at the age of 26 years from Kermanshah University of Medical Sciences, Iran and also, he has completed his specialty at psychiatry at Tabriz. He is the professor of Kermanshah University of Medical Sciences, Iran. He has over 150 publications that have been cited over 1500 times, and his publication H-index is 19.

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