

MELATONIN FOR THE TREATMENT OF
OBESITY: IS IT EFFECTIVE?

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ABSTRACT

Obesity is a global epidemic affecting millions worldwide imposing a large health burden and latest data showed that about half of Malaysian adults were overweight and more were becoming obese. Standard therapy such as behaviour and lifestyle modification and physical exercise have not been very successful. Numerous drugs have been approved for the treatment of obesity. Melatonin was found to induce weight loss and reduction in adiposity in animals. This study is a systematic review carried out to determine if melatonin is an effective treatment for obesity in humans. Literature search was performed in Pubmed and Cochrane electronic databases with inclusion and exclusion criteria using selected keywords and 14 articles were reviewed. Data analysis was carried out and all the articles supported the beneficial effects of melatonin on weight loss. Melatonin was effective in significantly preventing weight gain or in reducing body weight as well as in reducing intraabdominal fat. However, all the studies were animal studies differing in the species and sexes of the animals, the dosage of melatonin administered, route of melatonin administration and duration of intervention. The measures of outcome were also different among the studies and the mechanisms of action were poorly elucidated. Melatonin is promising as a novel approach in the treatment of obesity as well as a prophylaxis therapy against obesity. Extensive studies involving randomised controlled clinical trials on human subjects are timely and warranted to establish the role of melatonin as an effective treatment regime for obesity.