Melatonin 20mg

SUPPLEMENT FACTS

Melatoninon ........................ 20 mg

Key Features

Melatonin is a hormone secreted by the pineal gland in the brain. It helps regulate other hormones and maintains the body’s circadian rhythm.

Studies over the last decade have shown melatonin may have several distinct mechanisms useful in cancer treatment leading to significantly improved complete and partial remission as well as increased 1-year survival rate and dramatically decreased radiochemotherapy-related side effects and fatigue.*

*These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease.
The efficacy and safety of melatonin in concurrent chemotherapy or radiotherapy for solid tumors: a meta-analysis of randomized controlled trials

Ye-min Wang · Bao-zhe Jin · Fang Ai · Chang-hong Duan · Yi-zhong Lu · Ting-fang Dong · Qing-lin Fu

Abstract

**Background** Recently, melatonin has been associated with cancer both in vitro and in vivo. However, the value of melatonin in the treatment of cancer remains disputable. Hence, we performed a systematic review of randomized controlled trials (RCTs) of melatonin in solid tumor cancer patients and observed its effect on tumor remission, 1-year survival, and side effects due to radiochemotherapy.

**Methods** An electronic search was conducted using the databases Pubmed, Medline, EMBASE, Cochrane library, and CNKI, from inception to November 2011. Trials using melatonin as adjunct treatment concurrent with chemotherapy or radiotherapy for cancer were included. Pooled relative risk (RR) for the tumor remission, 1-year survival, and radiochemotherapy-related side effects were calculated using the software Revman 5.0.

**Results** The search strategy identified 8 eligible RCTs (n = 761), all of which studied solid tumor cancers. The dosage of melatonin used in the 8 included RCTs was 20 mg orally, once a day. Melatonin significantly improved the complete and partial remission (16.5 vs. 32.6%; RR = 1.95, 95% CI, 1.49–2.54; P < 0.00001) as well as 1-year survival rate (28.4 vs. 52.2%; RR = 1.90; 95% CI, 1.28–2.83; P = 0.001), and dramatically decreased radiochemotherapy-related side effects including thrombocytopenia (19.7 vs. 2.2%; RR = 0.13; 95% CI, 0.06–0.28; P < 0.00001), neurotoxicity (15.2 vs. 2.5%; RR = 0.19; 95% CI, 0.09–0.40; P < 0.00001), and fatigue (49.1 vs. 17.2%; RR = 0.37; 95% CI, 0.28–0.48; P < 0.00001). Effects were consistent across different types of cancer. No severe adverse events were reported.

**Conclusions** Melatonin as an adjuvant therapy for cancer led to substantial improvements in tumor remission, 1-year survival, and alleviation of radiochemotherapy-related side effects.

**Keywords** Melatonin · Cancer · Meta-analysis · Remission · Survival
Melatonin as Adjuvant Cancer Care With and Without Chemotherapy: A Systematic Review and Meta-analysis of Randomized Trials

Dugald Seely, ND, MSc, FABNO\textsuperscript{1,2,3}, Ping Wu, MD, MSc\textsuperscript{1}, Heidi Fritz, ND, MA\textsuperscript{1}, Deborah A. Kennedy, MBA, ND\textsuperscript{1,4}, Teresa Tsui, ND, MSc\textsuperscript{1}, Andrew J. E. Seely, MD, PhD, FRCSC\textsuperscript{3}, and Edward Mills, PhD\textsuperscript{5}

Abstract

Background. Melatonin (MLT) is known to possess potent antioxidant, antiproliferative, immune-modulating, and hormone-modulating properties. Clinical evidence suggests that MLT may have a possible role in the treatment of cancer. The authors systematically reviewed the effects of MLT in conjunction with chemotherapy, radiotherapy, supportive care, and palliative care on 1-year survival, complete response, partial response, stable disease, and chemotherapy-associated toxicities. Methods. The authors searched 7 databases: MEDLINE (1966-February 2010), AMED (1985-February 2010), Alt HealthWatch (1995-February 2010), CINAHL (1982-February 2010), Nursing and Allied Health Collection: Basic (1985-February 2010), the Cochrane Database (2009), and the Chinese database CNKI (1979-February 2010). They included all trials that randomized patients to treatment, including MLT or a similar control group without MLT. Results. The authors included data from 21 clinical trials, all of which dealt with solid tumors. The pooled relative risk (RR) for 1-year mortality was 0.63 (95% confidence interval [CI] = 0.53-0.74; \( P < .001 \)). Improved effect was found for complete response, partial response, and stable disease with RRs of 2.33 (95% CI = 1.29-4.20), 1.90 (1.43-2.51), and 1.51 (1.08-2.12), respectively. In trials combining MLT with chemotherapy, adjuvant MLT decreased 1-year mortality (RR = 0.60; 95% CI = 0.54-0.67) and improved outcomes of complete response, partial response, and stable disease; pooled RRs were 2.53 (1.36-4.71), 1.70 (1.37-2.12), and 1.15 (1.00-1.33), respectively. In these studies, MLT also significantly reduced asthenia, leucopenia, nausea and vomiting, hypotension, and thrombocytopenia. Conclusion. MLT may benefit cancer patients who are also receiving chemotherapy, radiotherapy, supportive therapy, or palliative therapy by improving survival and ameliorating the side effects of chemotherapy.
Selected References:


