

Sleep Quality and Endometriosis: A Group Comparison Pilot Study

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Objective

To assess the relationship between sleep quality and endometriosis in an Australian population. Secondary outcomes measured were the effects of poor sleep on quality of life and pain scores and the correlation between pain scores and quality of life.

Background

Endometriosis affects around 10% of women of reproductive age and can cause a spectrum of debilitating symptoms [2]. Recent studies have highlighted an important relationship between sleep quality and pain levels and subsequently quality of life in women with endometriosis – identifying sleep as a potential target for treatment [2].

Moreover, melatonin has shown to be a potential treatment for endometriosis, increasing sleep quality whilst also acting as an analgesic, anti-inflammatory agent and potential immunomodulator in this population [3].

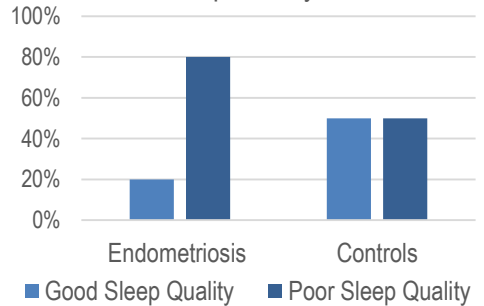
Methods

- This group comparison pilot study was conducted at a large Australian tertiary hospital between May 2016 and May 2017
- It included 30 women with a histological diagnosis of endometriosis and 30 control patients (with no symptoms or history of endometriosis)
- Participants completed an online questionnaire which assessed sleep quality (Pittsburgh Sleep Quality index (PSQI)) and quality of life (WHO-QOL-BREF). Pain scores within the endometriosis group were evaluated using a Visual Analogue Scale (VAS).

Results

- Women with endometriosis were more likely to have poor sleep quality when compared to the control group (80% vs 50%, $p=0.015$)
- Women with endometriosis were also found to have poorer quality of life scores (Physical/Psychologist/Environmental) when compared with controls ($p<0.05$)
- Within the endometriosis group there was an association between poor sleep and a reduced quality of life. In addition, poor sleep was associated with higher pain scores, however neither of these were found to be statistically significant due to our small study size.
- There was also a negative correlation between pain levels and quality of life, with higher pain being associated with a lower quality of life score. This highlights an important clinical relationship but again this was not found to be statistically significant.

Sleep Quality



Conclusion

Sleep quality and quality of life were significantly reduced in women with endometriosis. This pilot study represents a gateway to future research to explore sleep-related interventions, including the use of melatonin, in patients diagnosed with endometriosis.

1. Eskenazi, B. and M.L. Warner, *Epidemiology of endometriosis. Obstet Gynecol Clin North Am* 1997;24(2):235-58.

2. Leone Roberti Maggiore, U., et al., *Symptomatic endometriosis of the posterior cul-de-sac is associated with impaired sleep quality, excessive daytime sleepiness and insomnia: a case-control study. Eur J Obstet Gynecol Reprod Biol* 2015;209:39-43.

3. Schwertner, A., et al., *Efficacy of melatonin in the treatment of endometriosis: a phase II, randomized, double-blind, placebo-controlled trial. Pain* 2013;154(6):874-81.