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Less Shut-Eye if You have Breast Cancer

A recent study has shown that women with breast or endometrial cancer have increased levels of obstructive sleep apnoea (OSA). Researchers from the Ludwig Engel Centre for Respiratory Research, the Westmead Institute for Medical Research, and the University of Sydney, Australia, found that various epidemiological studies reported increased mortality rates in cancer patients with co-morbid OSA. However, most reports focused on retrospective data across a range of cancer types. As such, literature on associations between OSA and specific cancers are limited.

Thus, the goal of this cross-sectional study was to measure the prevalence of OSA in women with breast (12 months) and endometrial (3 months) cancer post-diagnosis, which is a female cancer cohort with the OSA-shared risk factor of obesity. The research sample included 51 women diagnosed with breast cancer and 37 diagnosed with endometrial cancer. The team collected demographic, anthropometric data, cancer stage, grade, histopathology and history of cancer treatment and all subjects had in-laboratory polysomnography. In addition, they aimed to identify potential links between the severity of sleep disordered breathing and tumour markers, associated with tumour aggressiveness.

Differences in sleep architecture between the two groups showed that women with endometrial cancer had less REM sleep, more slow-wave sleep and a shorter sleep latency. These differences could be related to differences in reproductive hormone levels. Obesity was the only significant demographic difference between the two groups. Regarding severity of OSA, the differences were small, but the average oxygen saturation (asleep and awake) was lower in endometrial cancer patients. This could be linked to the increased obesity of these patients. Similar prevalence and severity of OSA in both groups are a reflection of their age and obesity risk factors.

The most important finding is that more than half of the women in both groups had moderate OSA (apnoea hypopnea index >15 events/hour) and a third had severe OSA (apnoea hypopnea index >30 events/hour). Regarding overall severity, no differences could be detected. Furthermore, no associations between the measurement of OSA severity and any tumour histopathological feature or malignancy grade could be found.

The prevalence of moderate-severe OSA may go unnoticed due to an atypical presentation or a lack of sleepiness symptoms. Whilst the researchers could not find any relationship between sleep disorder breathing and histopathological characteristics, OSA could potentially lead to increased anaesthetic and surgical risk to the patient during treatment. It could also affect their quality of life during the post-treatment phase. Post-menopausal women with breast or endometrial cancer show a high prevalence of OSA; yet, there is no association with specific tumour characteristics.

Source: Plos

Image credit: Pinterest

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