**Introduction:** Obstructive sleep apnea (OSA) is a breathing disorder with increased prevalence in women after the menopause. However, the prevalence is still significantly lower in menopausal women than in men when adjusted for age and body mass index. Using clinical criteria and polysomnography, the prevalence was found to be 1.2% in women and 3.9% in men. The main feature of OSA is the presence of repetitive episodes of upper airway obstruction during sleep, leading to recurrent hypoxia and hypercapnia, with consequent activation of chemoreceptors and alteration of autonomic nervous system activity, which influences in development of comorbidities. **Objectives:** The purpose of this study is to conduct a systematic review of obstructive sleep apnea syndrome in postmenopausal women to improve the treatment and the quality of life of these patients. **Material and Methods:** We conducted a systematic literature review from the following online databases: Lilacs, Medline, SciELO and PubMed. During the analysis and selection of the work, were considered the information in the texts, statistical significance, consistency and results presented by the authors. **Results:** Studies show that differences in sleep architecture, ventilation control, presence of obesity and anatomy of the upper airways seem to influence the incidence of differences found between genders. Martins et al found that apnea is present in women with arterial values of CO2 much lower than in men, which is especially related to circulating female hormones. It is believed that progesterone is responsible for an increase in ventilatory response to hypoxia and hypercapnia, which influences the high threshold for the onset of apnea in women. Among the factors that influence the risk of OSA increase in females is perimenopause. According to Hannhart et al, the decrease in estrogen and progesterone modifies factors such as redistribution of body fat, with a greater tendency to central fat accumulation, especially in the thoracoabdominal and neck. In addition, the reduction of progesterone modifies muscle tone in the upper airways, leading to a greater tendency to collapse during sleep. Polysomnography studies show that women after menopause have an increased latency to sleep onset and difficulty to keep it, having less sleep efficiency. Bixler et al showed that, among women presenting OSA, 100% of premenopausal women were obese, as were 100% of postmenopausal women undergoing hormone replacement therapy. **Discussion and Conclusion:** We can conclude that, women with OSA when compared to men are usually more obese, have a tendency to develop less severe sleep apnea and have higher impairment of sleep efficiency. In relation to sleep apnea, female hormones are protective and male hormones are harmful. Despite the relationship between hormone therapy (HT) and quality of sleep is still controversial, studies have shown that the use of TH led to improved quality of sleep in women after menopause. The results point to the need of greater attention to sleep disorders in postmenopausal women and greater need of investments in detailed studies to follow and adequately treat these patients.
References


