AIMS: Obstructive Sleep Apnea (OSA) is a common sleep disorder, associated with cardiovascular, metabolic and cerebrovascular morbidity. To date, the standard treatment of OSA is Continuous Positive Airway Pressure (CPAP) which reduces the severity of apneas. Several authors (e.g.: Canessa et al., 2011) have shown a cognitive impairment related to this disorder, which can be reversed through regular use of CPAP. Conversely, others (e.g. Verstraeten et al., 2004) have not revealed a significant impairment in any neuropsychological domain in patients with OSA. The aim of the present study was to verify whether OSA is associated with cognitive impairment, taking into account the discordant results above.

METHODS: Twenty-six patients with OSA were recruited and their neuropsychological profile was assessed by using both paper-pencil and very specific computerized tests. Thirteen of them chose CPAP to have their disorder treated and thirteen preferred either alternative therapies (pharmacological, surgical or a mandibular positioning device) or none. All participants were assessed at baseline and after three months.

RESULTS: Despite the severity of their OSA, no participants showed cognitive impairment in their psychometric performance at baseline compared with the normative data of the tests. Following a three-month CPAP treatment, test scores remained unchanged, as was the case for patients that had undergone alternative or no treatment.

CONCLUSIONS: These results seem to confirm the absence of cognitive deficits in patients with OSA.
in accordance with part of the literature (Verstraeten et al., 2004). These results seem also to indicate no significant differences between CPAP and alternative treatments.