Profiling OSAS patients of the OSAREDS study database

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Background

The OSAREDS (OSA-related Residual EDS prevalence in Italian patients) study retrospectively collected data of OSA patients, managed in Respiratory and Neurological Centers[1]. Defining how comorbidities and symptoms are associated with EDS can help in profiling different clusters of patients.

Aim

To characterize symptoms and comorbidities of patients with and without excessive daytime sleepiness (EDS) before CPAP treatment.

Conclusions

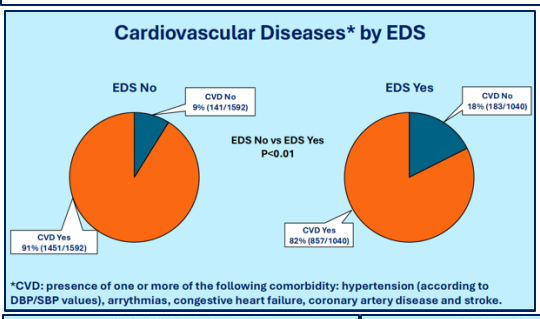
- **EDS is a key symptom in OSAS patients, which should always be assessed and managed if present.**
- **EDS association to comorbidities, symptoms and OSAS variables suggests the profiling of patients' clusters**
- **Patients' clusters indentification could help in personalizing OSAS diagnosis and treatment.**

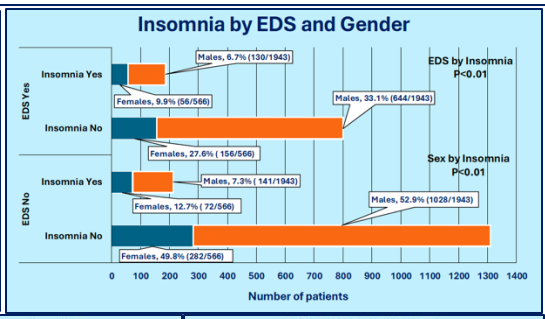
Patients and Methods

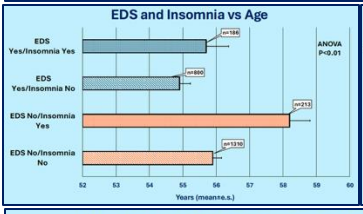
2663 cases with a pre-CPAP visit were grouped based on the presence or absence of EDS, cardiovascular disease (CVD), and insomnia. CVD was defined as hypertension, diagnosed according to DBP/SBP values, and/or the presence of one or more of the following conditions reported in the medical history: arrhythmias, congestive heart failure, coronary artery disease, and stroke. Within these subgroups, age, sex, AHI, T90, and the number of OSAS symptoms other than EDS and insomnia were compared. Other OSAS symptoms considered included snoring, nocturia, breath-holding, choking, gasping, excessive perspiration, morning headache, limb movements, and fatigue. Symptoms and CVD prevalence are presented as percentages, while BMI, AHI, and T90 are expressed as mean values±standard error (s.e.).

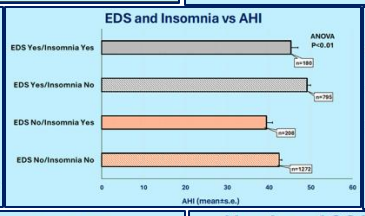
Results

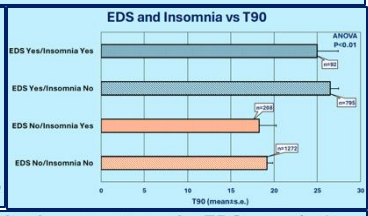
- Cardiovascular comorbidities were more frequent in patients without EDS (Fig. 1).
- Insomnia was reported more frequently in females than in males, regardless of EDS presence (Fig, 2).
- Patients without EDS and with insomnia were the oldest and the ones with EDS and without insomnia were the youngest (Fig. 3).
- Both AHI (Fig. 4) and T90 (Fig. 5) were highest in patients with EDS and without insomnia and lowest in the ones without EDS and with insomnia.
- Patients with EDS more frequently (52%) had 4 to more than 5 symptoms (64%), while the ones without EDS more often had 1 to 3 symptoms (Fig. 6).
- Patients with mild EDS more often (55%) had 1 to 3 symptoms, while patients with moderate to severe EDS more often (60%) had 4 to more than 5 symptoms (Fig. 7).

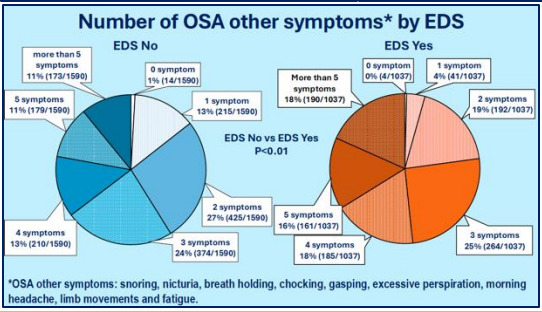


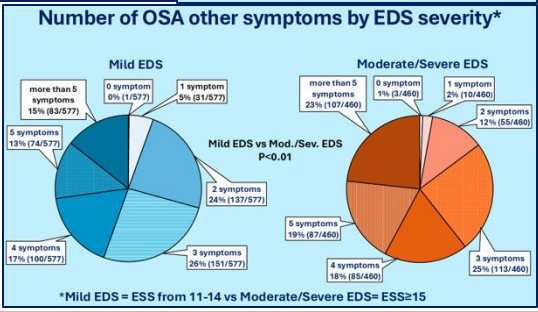












1) G Insalaco et al. Excessive daytime sleepiness and sex-related differences in the clinical presentation of obstructive sleep apnea in Italian patients. Sleep Medicine 136 (2025) 106819.