Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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test was performed 2 times: after a normal night’s rest (NR) and after an 8-hour period of driving (ND) on the average distance of 4714.4 km. The interval between tests was at least 1 week. Holter ECG with heart rate variability (HRV) analysis, blood pressure monitoring (ABPM) were used. Fatigue was assessed using Fatigue Scales (“usual fatigue” and “current fatigue”). After (ND) the level of “current fatigue” was significantly higher than the level of “usual fatigue” (an increase in symptoms in the cognitive, executive and physiological spheres). There were no significant differences in ABPM. HRV analysis from the 40 min. simulator test showed no differences between time- and frequency-dependent parameters. Significant differences were found (p<0.05) when these parameters were compared in the post-test period (SDNN, pNN50, total power, VLF, LF, HF) between NR vs. ND. The lack of difference in HRV parameters during the whole recording period between NR and ND indicates that the subjects are well adapted to shift work, but the additional stimulus of the test on the simulator induces significant changes in HRV, which appear after the test.

Sp4-4

Cardiovascular autonomic disorders and work ability: A focus on post-acute Covid19 syndrome

Franca Barbic, Stefano Rigo, Maura Minonzio, Dana Shiffer and Raffaello Furlan

A relationship between the autonomic nervous system and work ability has been recently described in autonomic disorders, i.e., Postural Orthostatic Tachycardia Syndrome (POTS). It is unknown whether COVID19 may induce a post-acute viral syndrome potentially affecting the autonomic nervous systems. No data are available on work ability and time of return to work of patients after Covid19.

Forty patients (age 53±9 years) admitted to Humanitas Research Hospital during the 2nd and 3rd outbreaks in Italy were consecutively enrolled at the time of their hospital discharge (T0). Work ability and autonomic symptoms were assessed at T0, 1 month (T1) and 3 months (T2) after hospital discharge by the Work Ability Index (WAI, 7 domains, 0-49) and by the Composite Autonomic Symptom Score (COMPASS31Total Score, 0-100; CTS). CTS > 16.4 reflects an initial autonomic dysfunction. At T0, the patients were asked to retrospectively complete the additional questionnaires to assess their work ability and autonomic symptoms before COVID19 (PRE).

At PRE, the patients’ WAI was 42.3±5.4, corresponding to “good work ability” and the CTS was 10.7±9.9. At T1, WAI was lower (35.9±6.5; p<0.0001), and CTS was higher (20.4±17.4, p<0.0001) compared to PRE. At T2, WAI was still lower compared to PRE (38.9±6.4; p<0.0001). At T1 and T2, the patients who returned to their previous work were 95% and 97%, respectively. Post-acute COVID19 are characterized by an autonomic dysfunction, like what is observed in POTS. This post-viral autonomic syndrome reduced patients’ work ability and delayed their return to work.

Sp4-5

Neurophysiology of sleep in workers’ health and safety during Covid19 pandemic

Sergio Garbarina

Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics and Maternal/Child Sciences, University of Genoa, Genoa, Italy

Introduction: Sleep problems appear to have been common and associated with higher levels of psychological distress. Sleep quality, however, has been mainly assessed by the use of self-reported measures, thus limiting clinical usefulness. We review the literature about the sleep quality of workers supported by objective neuropsychological tools, during the COVID-19 pandemic.

Materials and Methods: We conducted a systematic search of the PubMed database through October 27, 2021, including terms Covid-19, sleep, workers, neurophysiology, polysomnography and actigraphy.

Results: A total of 13 studies were included. Out of these, only two studies evaluated sleep problems in workers (Healthcare professionals) with objective neuropsychological tools such as actigraphic evaluation. About 35% of healthcare workers were suffering from sleep disturbances having a sleep efficiency value less than 90% and high PSQI scores with a significant negative correlation between SE and PSQI and a trend of a negative association between SE and age. No other job categories were evaluated.

Conclusions: During the lockdown, increases in sleep problems are associated with sense of time and are more pronounced in individuals with higher levels of depression, anxiety, and stress. People who isolated at home (smart-working) reported significantly earlier sleep onset and wake-up times than actigraphy-defined, tending to overestimate their specific sleep times. It is of utmost relevance to assess sleep by objective measures to set appropriate preventive strategies treating sleep problems, thus also obtaining reduced psychological distress.

Special Session 5 Development of Basic Occupational Health Services, more needed than ever

Chair: Frank van Dijk and Somnath Gangopadhyay

Session introduction

Good quality support in occupational safety and health is not available for 85% of all workers. Many workers are threatened by hazardous working conditions, especially informal workers, workers in agriculture, in small companies, in urban industry areas, and self-employed. Primary and community/public health care can provide Basic Occupational Health Services. Good education in OSH is needed, OSH expert support, referral clinics, a national infrastructure inclusive financial resources and online facilities. Evaluation studies and international collaboration can stimulate quality and coverage. Mutual contact, coordination and visible leadership must be improved. Initiatives in several countries will be presented. Developments in other countries and in agriculture will be communicated.