

O-13 - CHALLENGING THE SLEEP HOMEOSTAT IN YOUNG DEPRESSED AND HEALTHY OLDER WOMEN: SLEEP IN DEPRESSION IS NOT PREMATURE AGING

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Introduction: Major depression and sleep disturbances are closely related and often occur concomitantly. Many of the observed changes of sleep characteristics in depression are also present in healthy aging, which led to the premise that sleep in depression resembles premature aging.

Aim: Here, we aimed at quantifying the homeostatic and circadian sleep-wake regulatory components in young women suffering from major depression disorder and healthy young and older control women during 40 hours of sustained wakefulness.

Methods: After an 8-h baseline night 9 depressed women, 8 healthy young and 8 healthy older women underwent a 40-hour sustained wakefulness protocol followed by a recovery night under constant routine conditions. Polysomnographic recordings were carried out continuously. Sleep parameters as well as the time course of EEG slow-wave activity (SWA) (EEG spectra range: 0.75-4.5 Hz), as a marker of homeostatic sleep pressure, was analyzed during the recovery night.

Results: Young depressed women exhibited higher absolute mean SWA levels and a stronger response to sleep deprivation compared to healthy young and healthy older women, particularly in frontal brain regions. In contrast, healthy older women exhibited attenuated SWA values compared to the other two groups and an absence of the frontal predominance of mean SWA during the recovery night.

Conclusions: Our data clearly show that homeostatic sleep regulation as well as sleep architecture in young depressed women is not equal to premature aging. Moreover, our findings demonstrate that young depressed women live on an elevated level of homeostatic sleep pressure.