W.4. Prevalence, treatment and control of chronic diseases walk

Association between sleep complaints and cardiovascular mortality: Ten year health outcomes study results

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Background
Self-evaluated poor sleep increases the risk of cardiovascular diseases; however the role of different sleep complaints is hypothesized.

The aim of this study was to establish association between sleep complaints and cardiovascular mortality in the period of 10 years among inhabitants of Palanga city, located at the Western part of Lithuania.

Methods and contingent
The prevalence of sleep complaints in a 35-74 year old representative sample (N = 1602, 600 males and 1002 females) was assessed in 2003. Basic Nordic Sleep Questionnaire was used for establishing the frequency of sleep complaints: difficulties falling asleep, nights with awakenings, the frequency of night time awakenings and too early awakenings in the morning.

Mortality data for the period 2003–13 was obtained from the Regional Mortality Register. Cox proportional hazard regression analysis was used to assess the multivariable association among the sleep quality variables and outcomes, adjusted for age and gender. The chi-square test or Fisher exact test was used to estimate association between categorical variables. P-values less than .05 were interpreted as statistically significant.

Results
The leading causes of death (141 cases, 64.5% males) in the sample were cancer (32.5%), coronary artery disease (14.2%), stroke (7.1%) and other diseases (27.0%). The most prevalent sleep complaints at the baseline were regular night time awakenings – 37.2%, too early awakenings in the morning – 7.1% and difficulties falling asleep every evening – 6.9%.

Relative risk for cardiovascular mortality after adjustment for age and gender was significantly associated with self-evaluated sleep quality (RR = 13.077, 95% CI = 3.351–51.034, p < .001), difficulties falling asleep (RR = .635, 95% CI = .432–.932, p = .020), excessive daytime sleepiness during weekends (RR = 2.104, 95% CI = 1.235–3.585, p = .006) and daytime napping (RR = .607, 95% CI = 0.402–0.918, p = .018).

Conclusions
Ten year study demonstrated that cardiovascular mortality risk in 35–74 year community sample was associated with self-evaluated sleep quality, difficulties falling asleep, excessive sleepiness during weekends and daytime napping.

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Key message
- Cardiovascular mortality risk was associated with self-evaluated sleep quality, difficulties falling asleep, excessive sleepiness during weekends and daytime napping.