RATINGS OF VISUAL- AND NECK/SHOULDER DISCOMFORT DURING DEMANDING SIMULATED NEAR WORK

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Introduction
Visual discomfort and neck/shoulder discomfort is often reported among people using computers in their work. Correlation between these two symptoms categories are reported in cross-sectional studies (Wiholm et al. 2007). One aim of this laboratory study was to investigate how self reported visual- and neck/shoulder discomfort develop during periods of simulated demanding near work among participants with long-term neck pain.

Methods
Thirty-three participants with neck pain (median age 37, range 20-47) did a lab based experimental viewing task four times. Each viewing task consisted of seven minutes focusing a zebra striped pattern on a computer screen with different trial lenses (-3.5 D, +3.5 D and 0 D, randomized order). Throughout the experiment, the participant sat leaned back and relaxed in an office chair with neck support. At baseline and after each viewing task, participants rated visual- and neck/shoulder discomfort with Borg CR-10.

Results
Wilcoxon signed rank test was used to analyze differences between the tasks within symptom (visual- and neck/shoulder discomfort). Visual discomfort increased from baseline until after task two (\(p < 0.01\)), and then remained at the higher level - figure 1. Neck/shoulder discomfort decreased slightly (non significant) from baseline until after task one, and then increased during the remaining tasks – figure 1. The increase in neck/shoulder discomfort was significant between task one and two, and between task three and four (\(p < 0.01\)). There was a correlation between visual- and neck/shoulder discomfort (Spearman rho = 0.473, \(p < 0.01\)).

Discussion and conclusion
Both visual- and neck/shoulder discomfort increases during periods of simulated demanding near work. The reason for the increased neck/shoulder discomfort can either be the demanding near work or the static posture that participants had to maintain. Further analysis is needed to determine the cause of increased symptoms.