Long hours, not PACS, take the blame for radiologist eye strain

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Eye strain in radiologists has less to do with the switch to soft-copy reading than with the long work days they log with few breaks, according to researchers at the Vancouver Hospital and Health Sciences Center.

While eye strain was common in the study's radiologist population, it did not vary significantly between users of PACS and hard-copy film readers, said lead author Dr. Talia Vertinsky, a radiology resident at Vancouver Hospital.

"Working hours had the strongest influence on eye strain, which increased in those who reported studies for longer than six hours per day and decreased in those who took breaks every hour," she said.
Symptoms were independent of the length of the break taken and of other workstation and technique variables.
In what the researchers claim is the first study to examine the prevalence of eye and neck symptoms in radiologists, Vertinsky and colleagues surveyed 2700 radiologists randomly selected from the membership roster of the RSNA. The study looked at age, viewing method (PACS or hard copy), case volume, technique, work habits, and workstation design. It was published in the February issue of the American Journal of Roentgenology.
Response rate was 14%, and the largest age cohort was 36 to 50. The prevalence of eye strain — 36% — was not affected by viewing method, according to the report.
Increased symptoms could be independently predicted in radiologists who were female, had longer work days, took fewer breaks, reported screen flicker, and performed CT screening.
Given the march of technological advances, the rate-limiting factor to productivity will be radiologist fatigue, including eye strain. To manage increasing workload demands effectively, radiologists must focus on strategies to maximize productivity, Vertinsky said.
"Eye strain, which has a high prevalence in our study population, can hinder productivity and diagnostic interpretation by causing perceptual errors, performance errors, decreased reaction time, fatigue, and even burn-out," she said.
The paper advised radiologists to take breaks of any length at least every hour, limit the length of the workday, eliminate computer screen flicker, and perform other simple ergonomic strategies to reduce the likelihood of eye strain symptoms.
"Improving ergonomic design of workstations is likely to help symptoms, but education of radiologists on proper viewing habits is equally important," Vertinsky said.

Disclosures:

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