Medical Xpress

Stress at work very unlikely to cause cancer, research says

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Work-related stress is not linked to the development of colorectal, lung, breast or prostate cancers, a study published today in *BMJ* suggests.

Around 90% of cancers are linked to environmental exposures and whilst some exposures are well recognised (such as UV radiation and tobacco smoke), others are not (psychological factors such as stress).

Stress can cause chronic inflammation which has been shown to have various roles in the development of cancer, plus stressed individuals are more likely to smoke, consume excessive amounts of alcohol and be obese – all of which are cancer risk factors.

So far, only a few studies have examined the associations between work-related stress and cancer risk. These also had unclear conclusions.

Researchers from the IPD-Work Consortium, led by the Finnish Institute of Occupational Health and University College London therefore carried out a meta-analysis of 12 studies involving 116,000 participants aged 17 to 70, from Finland, France, the Netherlands, Sweden, Denmark, and the UK.

Psychological stress at work was assessed using a validated measure, job strain. Job strain was categorised into: high strain job (high demands and low control), active job (high demands and high control), passive job (low demands and low control) and low strain job (low demands and high control).

Data on cancer events were obtained from national cancer or death registries and hospitalisation registries.

Rates were adjusted for age, sex, socioeconomic position, BMI, smoking and alcohol intake. Those with a BMI under 15 or over 50 were excluded from the study.

Results showed that 5,765 out of 116,056 (5%) participants developed some form of cancer in the average 12 year follow-up. Researchers found no evidence of an association between job strain and overall cancer risk. They suggest that many of the previously reported associations may have been chance findings or influenced by possible unmeasured common causes of stress and cancer, for example shift work.

Researchers conclude that the meta-analysis provided "no evidence for an association between job strain and overall cancer risk" suggesting that work-related psychological stress is unlikely to be an important factor for cancer. And although reducing work stress would improve the well-being of the general population, it is unlikely to have a marked impact on cancer burden at population-level.

More information: Work stress and risk of cancer: meta-analysis of 5700 incident cancer events in 116000 European men and women, *BMJ*, 2013.

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