Korelasi asupan dan kadar vitamin C, E dengan kadar isoprostan pekerja pabrik asbes = Correlation between intakes and level of vitamin C and E and isoprostane level in asbestos factory workers

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Abstrak

Stress oksidatif merupakan dasar dari berbagai penyakit degeneratif dan kanker, termasuk asbestosis dan mesotelioma. Kedua penyakit tersebut terjadi akibat terinhalasinya serat asbes dalam jangka waktu lama dan jumlah pajanan yang tinggi. Penelitian potong lintang di Sekretariat Buruh Karawang bulan Oktober 2014 dilakukan untuk menilai korelasi asupan dan kadar vitamin C, E dengan kadar isoprostan. Lima puluh dua subjek yang bekerja di pabrik asbes selesai mengikuti seluruh protokol penelitian. Hasil menunjukkan bahwa asupan vitamin C dan kadar vitamin E berkorelasi negatif dengan kadar isoprostan, sedangkan asupan vitamin E dan kadar vitamin C berkorelasi positif dengan kadar isoprostan pekerja pabrik asbes. Korelasi tersebut secara statistik tidak bermakna. Penelitian lanjut diperlukan untuk menilai kadar isoprostan secara series, sehingga bila ada peningkatan yang signifikan dapat segera dikethui.

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Oxidative stress is the base of various degenerative diseases and cancers, including asbestosis and mesothelioma. Both of them occur due to prolonged inhalation of asbestos fibers and high level of exposure. A cross-sectional study at a labor secretariat in October 2014 was performed to assess the correlations between intakes and levels of vitamin C and vitamin E and isoprostane level. Fifty two subjects working at an asbestos factory finished the study. The result showed that vitamin C intake and vitamin E level were negatively correlated with isoprostane level. Meanwhile, vitamin E intake and vitamin C level were positively correlated with isoprostane level in asbestos factory workers. These correlations were statistically insignificant. Asbestos factory workers should be educated to increase their intakes of vitamin C and vitamin E.