INTISARI

Pradita Isdio Mahendra Renza. Nim 3181023. Hubungan Kadar Kadmium (Cd) Dalam Rambut Dengan Kadar Asam Urat Pada Pekerja Las di Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo.

Pekerja las berpotensi terpapar *fumes* yang mengandung kadmium pada saat proses pengelasan. Kadmium merupakan salah satu logam berat yang dianggap sebagai toksikan. Logam berat kadmium dapat menganggu kesehatan organ-organ tubuh seperti ginjal. Akumulasi kadmium pada ginjal dapat menurunkan aktivitas ekskresi urat. Dampak yang dihasilkan adalah kenaikan kadar asam urat dalam tubuh (hiperurisemia). Penelitian ini bertujuan untuk mengetahui hubungan kadar kadmium dalam rambut dengan kadar asam urat pekerja las di Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo. Penelitian dilakukan dengan menggunakan metode *purposive sampling* terhadap 15 pekerja las laki-laki. Kadar kadmium pada rambut diperiksa menggunakan *Flame Atomic Absorption Spectrophotometer* (FAAS). Kadar asam urat pada darah kapiler diperiksa menggunakan *Point of Care Testing* (POCT). Hasil pemeriksaan kadar kadmium pada 15 sampel masih dalam batas yang ditetapkan oleh Biolab <0.10 ppm yaitu 0,0447 ppm; 0,0496 ppm; 0,0438 ppm; 0,0522 ppm; 0,0552 ppm; 0,0536 ppm; 0,0543 ppm; 0,0543 ppm; 0,0606 ppm; 0,0702 ppm; 0,0629 ppm; 0,0723ppm; 0,0744 ppm; 0,0802 ppm; 0,0938 ppm. Hasil pemeriksaan kadar asam urat didapatkan 2 dari 15 sampel memiliki kadar asam urat tinggi >7,2 mg/dl. Data dianalisis menggunakan SPSS Uji *Korelasi Pearson.* Hasil uji *korelasi pearson* menunjukan tidak terdapat hubungan antara kadar kadmium dalam rambut dengan kadar asam urat pada pekerja las di Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo.

Kata kunci : Asam Urat, Kadmium, Pearson, Pekerja Las

ABSTRACT

Pradita Isdio Mahendra Renza. Nim 3181023. *Correlation Between Cadmium (Cd) Levels in Hair and Uric Acid Levels in Welding Workers in Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo.*

Welding workers are potentially exposed to cadmium-containing fumes during the welding process. Cadmium is one of the heavy metals that is considered toxic. Cadmium heavy metals can interfere with the health of body organs such as the kidneys. The accumulation of cadmium in the kidneys can decrease the excretory activity of the veins. The resulting impact is an increase in uric acid levels in the body (hyperuricemia). This study aims to determine the relationship between cadmium levels in hair and uric acid levels of welding workers in Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo. The study was conducted using a purposive sampling method on 15 male welding workers. Cadmium levels in the hair were examined using a Flame Atomic Absorption Spectrophotometer (FAAS). Uric acid levels in capillary blood are checked using Point of Care Testing (POCT). The results of the examination of cadmium levels in 15 samples were still within the limits set by Biolab <0.10 ppm, namely 0.0447 ppm; 0.0496 ppm; 0.0438 ppm; 0.0522 ppm; 0.0552 ppm; 0.0536 ppm; 0.0543 ppm; 0.0543 ppm; 0.0606 ppm; 0.0702 ppm; 0.0629 ppm; 0.0723ppm; 0.0744 ppm; 0.0802 ppm; 0.0938 ppm. Uric acid content examination results obtained 2 of the 15 samples had high uric acid levels >7.2 mg/dl. Data were analyzed using Pearson's SPSS Correlation Test. The results of the Pearson correlation test showed that there was no relationship between cadmium levels in the hair and uric acid levels in welding workers in Kelurahan Banaran, Kecamatan Grogol, Kabupaten Sukoharjo.

Keywords: Uric Acid, Cadmium, Pearson, Welding Workers