

ABSTRAK

Pada paruh pertama tahun 2021 industri logam dasar mengalami peningkatan sebesar 18,03% (APBRI). Salah satu logam yang paling sering dipakai untuk pembuatan kerajinan logam adalah timbal (Pb). Timbal (Pb) logam berat yang non esensial, tidak dibutuhkan di dalam tubuh manusia karena mempunyai toksisitas yang menyebabkan kerusakan organ-organ tubuh. Hati merupakan salah satu organ yang terkena dampak akibat paparan timbal yang berlebihan. Tes yang sering digunakan untuk mengetahui gangguan fungsi hati adalah tes kadar AST dan ALT.

Penelitian ini bertujuan untuk mengetahui gambaran kadar AST ALT pada pekerja di Kampung Logam, Desa Ngingas, Sidoarjo. Jenis penelitian ini dilakukan dengan metode deskriptif kuantitatif dengan menggunakan pendekatan *cross-sectional*. Sampel berjumlah 30 orang pekerja logam di Kampung Logam, Desa Ngingas, Kabupaten Sidoarjo yang diambil dengan teknik sampling *purposive sampling* dengan kriteria inklusi berjenis kelamin laki-laki, berumur 25-45 tahun, tidak ada riwayat penyakit hati sebelumnya dan lama bekerja minimal 2 tahun. Penelitian ini dilaksanakan Laboratorium Bakti Analisa Surabaya menggunakan alat BS-200 *Chemistry Analyzer*.

Gambaran kadar AST didapatkan rata-rata 27,35 U/L dengan kadar tertinggi 46 U/L, kadar terendah didapatkan 12,8 U/L, standar deviasi 9,89 dan rata-rata kadar AST yang didapatkan masih dalam nilai normal. Gambaran kadar ALT didapatkan 37,84 U/L dengan kadar tertinggi 254,1 U/L, kadar terendah 11,1 U/L, standar deviasi 44,75 dan rata-rata kadar ALT yang didapatkan masih dalam nilai normal.

Kata kunci: Pekerja Logam, Timbal, AST, ALT

ABSTRACT

In the first half of 2021 the base metal industry experienced an increase of 18.03% (APBRI). Lead (Pb) is one of the most commonly used metals for metal crafts. Lead (Pb), a non-essential heavy metal, is not needed in the human body because it has toxicity that causes damage to body organs. The liver is one of the organs affected by excessive lead exposure. Tests that are often used to determine liver function disorders are AST and ALT levels.

This study aims to determine the description of AST ALT levels in workers in Metal Village, Ngingas Village, Sidoarjo. This type of research was conducted using a quantitative descriptive method using a cross-sectional approach. The sample consisted of 30 metal workers in Metal Village, Ngingas Village, Sidoarjo Regency, which were taken using purposive sampling technique with inclusion criteria being male, aged 25-45 years, no history of previous liver disease and minimum 2 years of work. This research was carried out by the Bakti Analisa Laboratory in Surabaya using the BS-200 Chemistry Analyzer.

The description of AST levels obtained an average of 27.35 U/L with the highest level of 46 U/L, the lowest level was 12.8 U/L, the standard deviation was 9.89 and the average AST level obtained was still within normal values. The description of ALT levels was 37.84 U/L with the highest level of 254.1 U/L, the lowest level of 11.1 U/L, standard deviation of 44.75 and the average ALT level obtained was still within normal values.

Keywords: Metal-worker, Lead, AST, ALT