

ABSTRACT

Workers employed in a company dealing with pest control are at risk of pesticide poisoning. This poisoning can be detected by the determination of blood cholinesterase activity. The objectives of this study were to analyze the associations between knowledge, the wearing of personal protective equipment, duration of exposure and blood cholinesterase activity among pest control workers. The design of this study was categorized as an observational study with cross sectional approach. The population of this study was 31 workers and the numbers of samples were all pest control workers (total population study). The collected data were analyzed analytically using Chi Square test.

The result of this study showed that the majority (54, 8%) of respondents had normal blood cholinesterase activity. There were substantial strength of associations between knowledge ($C= 0,491$; $OR= 14,400$), duration/length of employment ($C= 0,520$; $OR= 17,111$), educational level ($C= 0,432$; $OR = 8,125$), the wearing / use of personal protective equipment ($C= 0,440$; $OR= 8,800$) and the blood cholinesterase activities of respondents, whereas the strength of associations between age ($C= 0,277$; $OR= 3,300$), working hours per week ($C = 0,397$; $OR = 6,722$) and blood cholinesterase activity were low.

Based on the results of this study, it is recommended that the company provide training on the safe use of pesticides to all pest control workers and perform preplacement and periodic health examinations. Pest control workers always where correctly all personal protective equipment provided by the company.

Key words: blood cholinesterase activity, pest control workers.

ABSTRAK

Pekerja di perusahaan pemberantas hama mempunyai risiko aktivitas *cholinesterase* dalam darahnya rendah. Penelitian ini bertujuan untuk menganalisis hubungan pengetahuan, pemakaian alat pelindung diri dan lama pemaparan pestisida terhadap aktivitas *cholinesterase* darah petugas pemberantas hama. Desain penelitian secara cross sectional dengan total populasi sebanyak 31 orang. Analisis data menggunakan uji *chi square*.

Hasil penelitian diketahui sebagian besar aktivitas *cholinesterase* darah responden normal, 17 orang (54,8%). Ada keeratan hubungan yang substansial antara: pengetahuan $C= 0,491$, $OR = 14,400$, masa kerja $C=0,520$, $OR= 17,111$, tingkat pendidikan $C= 0,432$, $OR = 8,125$, dan pemakaian alat pelindung diri $C= 0,440$, $OR = 8.800$, sedangkan keeratan hubungan yang rendah: lama pemaparan dalam jam per minggu $C = 0,397$, $OR = 6,722$, dan umur $C = 0,277$, $OR = 3,300$ terhadap aktivitas *cholinesterase* darah petugas pemberantas hama.

Berdasarkan hasil penelitian ini perusahaan disarankan agar memberikan penyuluhan dan pelatihan secara intensif tentang cara penggunaan pestisida yang aman kepada semua petugas pemberantas hama dan pemeriksaan kesehatan baik sebelum kerja maupun berkala hendaknya dilakukan juga. Petugas pemberantas hama hendaknya selalu memakai alat pelindung diri yang telah disediakan oleh perusahaan secara benar.

Kata kunci: aktivitas *cholinesterase* darah, petugas pemberantas hama.