

GAMBARAN KADAR *CHOLINESTERASE* PADA PENGGUNAAN OBAT ANTI NYAMUK DI PERUMAHAN BABELAN

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Abstrak

Pestisida adalah senyawa kimia yang biasanya digunakan dalam bidang pertanian untuk melindungi tanaman dari hama, gulma, dan serangga. Pemakaian obat anti nyamuk dapat berbahaya bagi tubuh manusia karena mengandung bahan aktif yang termasuk dalam golongan organofosfat dan karbamat. Tujuan penelitian ini untuk mengetahui kadar enzim *cholinesterase* pada serum dari penggunaan obat anti nyamuk di Perumahan Babelan. Penelitian ini dilaksanakan pada bulan Maret-Juni tahun 2022 dengan pengambilan sampel dilakukan pada masyarakat di Perumahan Babelan. Jenis penelitian yang digunakan yaitu penelitian deskriptif kuantitatif dengan desain *cross sectional*. Sampel dalam penelitian berjumlah 30 responden. Spesimen yang dipakai dalam penelitian adalah serum dengan menggunakan tabung *clot activator*. Pemeriksaan kadar *cholinesterase* menggunakan alat COBAS Integra 400 Plus. Data dianalisis dengan uji deskriptif dan uji *chi-square*. Hasil uji statistik deskriptif didapatkan hasil kadar *cholinesterase* dengan rata-rata 7,76 kU/L; nilai tengah 7,45 kU/L; nilai terendah 3,3 kU/L; nilai tertinggi 10,6 kU/L; dan hasil uji *chi-square* menunjukkan bahwa hanya karakteristik usia yang dapat mempengaruhi kadar *cholinesterase* ($p = 0,028$) sedangkan karakteristik lain tidak mempengaruhi kadar *cholinesterase*. Kesimpulan dari penelitian ini adalah penggunaan obat anti nyamuk dapat beresiko terjadi keracunan terhadap usia. Penelitian selanjutnya dilakukan pemeriksaan kadar SGOT dan SGPT dalam darah untuk mengetahui hubungan antara kadar *cholinesterase* dengan kadar SGOT dan SGPT.

Kata Kunci : *Cholinesterase*, penggunaan obat anti nyamuk

OVERVIEW OF CHOLINESTERASE LEVELS IN THE USE OF ANTI-MOSQUITO DRUGS IN BABELAN HOUSING

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Abstract

Pesticides are chemical compounds that are usually used in agriculture to protect crops from pests, weeds, and insects. The use of mosquito repellent can be harmful to the human body because it contains active ingredients that are included in the organophosphate and carbamate groups. The purpose of this study was to determine the level of the cholinesterase enzyme in serum from the use of mosquito repellent in Babelan Housing. This research was conducted in March-June 2022 with sampling carried out on the community in Babelan Housing. The type of research used is descriptive quantitative research with cross sectional design. The sample in the study amounted to 30 respondents. The specimen used in this study was serum using a clot activator tube. Examination of cholinesterase levels using the COBAS Integra 400 Plus tool. Data were analyzed by descriptive test and chi-square test. The results of the descriptive statistical test showed that the cholinesterase levels mean 7.76 kU/L; median 7.45 kU/L; minimum 3.3 kU/L; maximum 10.6 kU/L; and the results of the chi-square test showed that only age characteristics could affect cholinesterase levels ($p = 0.028$) while other characteristics did not affect cholinesterase levels. The conclusion of this study is the use of mosquito repellent can be at risk of poisoning with age. The next study was to examine the levels of SGOT and SGPT in the blood to determine the relationship between levels of cholinesterase and levels of SGOT and SGPT.

Keywords : Anti-Mosquito, Cholinesterase