

**HUBUNGAN ANTARA KADAR ASETILKOLINESTERASE DARAH  
DENGAN INSOMNIA PADA PETANI TERPAJAN PESTISIDA DI  
KECAMATAN NGABLAK KABUPATEN MAGELANG**

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**ABSTRAK**

Pestisida digunakan oleh petani di Indonesia sebagai sarana pengendalian organisme pengganggu tanaman. Paparan berulang atau berkepanjangan terhadap pestisida dapat menimbulkan gejala keracunan kronis berupa gangguan neurobehaviour antara lain gangguan memori dan konsentrasi, disorientasi, depresi berat, iritabilitas, kebingungan, nyeri kepala, kesulitan bicara, mimpi buruk, tidur sambil berjalan dan insomnia.

Tujuan penelitian ini adalah mengetahui hubungan antara kadar asetilkolinesterase darah dengan insomnia pada petani terpajan pestisida di Kecamatan Ngablak Kabupaten Magelang.

Metode penelitian ini menggunakan desain penelitian potong lintang untuk mengidentifikasi korelasi kadar kolinesterase darah dengan insomnia menggunakan *Insomnia Severity Index* (ISI) dan *Pittsburgh Sleep Quality Index* (PSQI)

Hasil penelitian didapatkan kadar kolinesterase di bawah normal lebih banyak dibandingkan dengan yang normal, dengan jumlah kadar di bawah normal sebanyak 83 (68,1%) berbanding dengan kadar normal sebanyak 38 (31,9%). Pada analisis data di penelitian ini menunjukkan tidak ada hubungan bermakna antara kadar asetilkolinesterase dengan insomnia ( $p=0,751$ ) juga tidak memiliki hubungan signifikan dengan nilai PSQI sebagai parameter gangguan tidur ( $p=0,298$ ).

Kata kunci: pestisida, insomnia, asetilkolinesterase

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**THE RELATIONSHIP BETWEEN BLOOD ACETYLCHOLINESTERASE LEVELS AND INSOMNIA IN FARMERS EXPOSED TO PESTICIDES IN NGABLAK DISTRICT, MAGELANG REGENCY**

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**ABSTRACT**

Pesticides are used by farmers in Indonesia to control plant-disturbing organisms. Repeated or prolonged exposure to pesticides can cause symptoms of chronic poisoning in the form of neurobehavior disorders including memory and concentration disorders, disorientation, severe depression, irritability, confusion, headache, difficulty speaking, nightmares, sleepwalking and insomnia.

The purpose of this study was to determine the relationship between blood acetylcholinesterase levels and insomnia in farmers exposed to pesticides in Ngablak District, Magelang Regency.

This research method uses a cross-sectional design to identify the correlation of blood cholinesterase levels with insomnia using the Insomnia Severity Index (ISI) and the Pittsburgh Sleep Quality Index (PSQI).

The results showed that the number of subjects with acetylcholinesterase levels below normal was more than normal level, 83 (68.1%) compared to 38 (31.9%). The data analysis in this study showed that there was no significant relationship between acetylcholinesterase levels and insomnia ( $p=0.751$ ) nor did it have a significant relationship with the PSQI value as a parameter of sleep disturbances ( $p=0.298$ ).

Keywords: pesticides, insomnia, acetylcholinesterase

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