

**KORELASI KADAR ASETILKOLINESTERASE DARAH DENGAN
GANGGUAN CEMAS PADA PETANI TERPAJAN PESTISIDA
DI KECAMATAN NGABLAK**

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INTISARI

Penggunaan pestisida berbahan kimia berpotensi menimbulkan keracunan. Paparan pestisida kronis dapat menimbulkan gejala neuropsikiatri seperti depresi dan gangguan cemas. Salah satu pestisida yang sering digunakan adalah organofosfat. Studi bertujuan untuk mengetahui efek pajanan pestisida pada munculnya gangguan cemas di Kecamatan Ngablak, Kabupaten Magelang, Jawa Tengah melalui pengukuran kadar kolinesterase darah dan hubungannya dengan kecemasan subjek.

Rancangan penelitian ini menggunakan desain penelitian potong lintang. Subjek penelitian adalah pada petani terpajan pestisida di Kecamatan Ngablak, Kabupaten Magelang pada bulan Oktober 2019. Penelitian ini menggunakan kuesioner wawancara terstruktur untuk mendapatkan data demografis, kondisi klinis, dan faktor risiko akibat pajanan pestisida. Gangguan cemas dinilai menggunakan instrumen kuisisioner *Hamilton Anxiety Rating Scale* (HARS). Pemeriksaan kadar kolinesterase darah menggunakan metode Ellman. Data yang didapatkan kemudian dianalisis secara bivariat (T-test atau ANOVA) dan kekuatan korelasi kedua variabel dianalisis dengan uji Spearman dengan nilai $p < 0,05$ dianggap bermakna. Pada penelitian ini diperoleh total 131 subjek petani terpajan pestisida dengan median usia subjek adalah 52 (31 – 86) tahun dengan rerata usia subjek adalah 52,09 tahun. Subjek penelitian yang berjenis kelamin laki-laki sebanyak 86 subjek (65,6%) dan perempuan sebanyak 45 subjek (34,4%). Hasil uji korelasi Spearman menunjukkan tidak ada korelasi bermakna antara kadar kolinesterase darah dengan HARS ($r = 0,072$; $p = 0,415$).

Tidak terdapat korelasi antara kadar kolinesterase darah dengan gangguan cemas pada petani yang terpajan pestisida di Kecamatan Ngablak, Kabupaten Magelang.

Kata kunci: Cemas, Gangguan, Kolinesterase, Petani, Pestisida, Organofosfat

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ABSTRACT

CORRELATION OF BLOOD ACETYLCHOLINESTERASE LEVELS WITH ANXIETY DISORDERS IN PESTICIDE-EXPOSED FARMERS IN NGABLAK DISTRICT, MAGELANG REGENCY

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ABSTRACT

The use of chemical pesticides has the potential to cause poisoning. Chronic pesticide exposure can lead to neuropsychiatric symptoms such as depression and anxiety disorders. One of the pesticides that is often used is organophosphate (OP). This study aims to determine the effect of pesticide exposure on the emergence of anxiety disorders in Ngablak District, Magelang Regency, Central Java by measuring blood cholinesterase levels.

This research used a cross-sectional design study. The research subjects were farmers exposed to pesticides in Ngablak District, Magelang Regency in October 2019. This study used a structured interview questionnaire to obtain demographic data, clinical conditions, and risk factors due to pesticide exposure. Anxiety disorders were assessed using the Hamilton Anxiety Rating Scale (HARS) questionnaire. Examination of blood cholinesterase levels using the Ellman method. The data obtained were then analyzed bivariately (T-test or ANOVA) and the strength of the correlation between the two variables was analyzed by Spearman's test with p value <0.05 considered significant.

In this study, a total of 131 farmer subjects with the median age of the subjects being 52 (31 – 86) years. The research subjects were 86 male subjects (65.6%) and female as many as 45 subjects (34.4%). The results of the Spearman correlation test showed no significant correlation between blood cholinesterase levels and HARS ($r = 0.072$; $p = 0.415$). Variables of age, last contact with pesticides and use of PPE had a significant relationship with HARS ($p < 0.05$).

There is no correlation between blood cholinesterase levels and anxiety disorders in farmers exposed to pesticides in Ngablak District, Magelang Regency.

Keywords: Anxiety, Disorders, Cholinesterase, Farmers, Pesticides, Organophosphate

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