KORELASI ANTARA KADAR ENZIM KOLINESTERASE DENGAN TEKANAN DARAH SISTOLIK PADA PETANI TERPAPAR PESTISIDA DI DESA LINGGASARI KECAMATAN KEMBARAN KABUPATEN BANYUMAS

ABSTRAK

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Latar Belakang: Tekanan darah sistolik adalah tekanan darah maksimum pada saat jantung berada dalam fase pengosongan dimana salah satu faktor yang memengaruhi adalah enzim kolinesterase. Penggunaan pestisida berlebih dapat menurunkan kadar enzim kolinesterase yang dapat menyebabkan peningkatan tekanan darah sistolik. Penelitian ini bertujuan untuk mengetahui korelasi antara kadar enzim kolinesterase dengan tekanan darah sistolik pada petani terpapar pestisida di Desa Linggasari Kecamatan Kembaran Kabupaten Banyumas. **Metode:** Jenis penelitian yang dilakukan bersifat observasional dengan pendekatan *cross sectional* dan pengumpulan data dilakukan dengan pemeriksaan secara langsung dan kuesioner. Populasi pada penelitian ini menggunakan *purposive sampling* yakni sebanyak 30 partisipan petani Desa Linggasari periode bulan Agustus dan September. Teknik analisis data menggunakan uji *Pearson.* **Hasil:** Dihasilkan bahwa dari 30 partisipan, sebanyak 28 partisipan memiliki kadar enzim kolinesterase normal dan 25 partisipan mengalami peningkatan tekanan darah sistolik. Analisis bivariat uji *Pearson* diperoleh nilai *p value* = 0,203 (p>0.05) yang menunjukkan tidak adanya korelasi antara kadar enzim kolinesterase dengan tekanan darah sistolik dan nilai *r* = -0,157 yang menunjukkan kekuatan korelasi yang sangat lemah dengan arah berlawanan dimana semakin rendah kolinesterase semakin tinggi tekanan darah sistolik**.** **Kesimpulan:** Tidak terdapat korelasi antara kadar enzim kolinesterase dengan tekanan darah sistolik pada petani terpapar pestisida di Desa Linggasari Kecamatan Kembaran dan korelasi arah berlawanan.

Kata kunci: Tekanan Darah Sistolik, Kolinesterase, Pestisida, Petani

CORRELATION BETWEEN CHOLINESTERASE ENZYME LEVELS AND SYSTOLIC BLOOD PRESSURE IN FARMERS EXPOSED TO PESTICIDES IN LINGGASARI VILLAGE, KECAMATAN KEMBARAN, KABUPATEN BANYUMAS

ABSTRACT

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Background: Systolic blood pressure is the maximum blood pressure when the heart is in the emptying phase where one of the influencing factors is the cholinesterase enzyme. Excessive use of pesticides can reduce levels of the cholinesterase enzyme and it will leads to an increase of the systolic blood pressure. The aim of this study is to determine the correlation between cholinesterase enzyme levels and systolic blood pressure in farmers exposed to pesticides in Linggasari Village, Kembaran District, Banyumas Regency. **Method**: This type of research is observational with a cross sectional study and data collection is done by direct examination and questionnaires. The population used purposive sampling with 30 Linggasari Village farmer who partcipate in August and September. The data analysis technique uses the Pearson test. **Results**: It was found that out of 30 participants, 28 participants had normal cholinesterase enzyme levels and 25 participants had increased systolic blood pressure. Pearson test bivariate analysis obtained p value = 0.203 ($p > 0.05$) which showed no correlation between cholinesterase enzyme levels and systolic blood pressure and $r = -0.157$ showed a very weak correlation strength in the opposite direction where the lower the cholinesterase the higher systolic blood pressure. **Conclusion:** There is no correlation between cholinesterase enzyme levels and systolic blood pressure in farmers exposed to pesticides in Linggasari Village, Kembaran District and the possibility of a correlation in the opposite direction.

Keywords: Systolic Blood Pressure, Cholinesterase, Pesticides, Farmer