

ABSTRAK

PENGARUH SUPLEMENTASI CANGRI TERHADAP KORELASI SOD (Superoxide dismutase) DAN KORTIKOSTERON PADA BURUNG KENARI (*Serinus canaria*)

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Burung kenari (*Serinus canaria domestica*) merupakan spesies yang sensitif terhadap perubahan lingkungan, di mana faktor stress dapat memicu peningkatan hormon kortikosteron dan produksi *Reactive Oxygen Species* (ROS) yang menyebabkan stress oksidatif. Enzim *Superoxide Dismutase* (SOD) berperan sebagai antioksidan endogen untuk menetralkan radikal bebas tersebut, namun aktivitasnya sangat bergantung pada ketersediaan mineral. Penelitian ini bertujuan untuk mengetahui korelasi antara kadar SOD dan hormon kortikosteron pada burung kenari yang diberi suplementasi tepung cangkang kerang darah (Cangri).

Metode penelitian melibatkan 5 ekor burung kenari jantan, 4 ekor diberi perlakuan suplementasi Cangri dosis 0,008 gram/hari selama 4 minggu, sementara 1 ekor menjadi kontrol. Sampel feses diekstraksi menggunakan metanol 80% dan dianalisis menggunakan metode ELISA untuk mengukur kadar SOD dan kortikosteron. Data dianalisis menggunakan uji korelasi Spearman Rank karena distribusi data yang tidak normal. Hasil penelitian menunjukkan adanya korelasi negatif yang sangat lemah dan tidak signifikan antara kadar kortikosteron dan SOD ($r = -0,103$; $p = 0,704$). Ketidaksignifikan ini diduga dipengaruhi oleh faktor dosis, gangguan sistem endokrin pada individu kenari, dan faktor suhu lingkungan selama penelitian. Kesimpulannya, suplementasi Cangri dalam kondisi penelitian ini belum menunjukkan hubungan linier yang kuat anatar respon stress fisiologis dan sistem pertahanan antioksidan pada burung kenari

Kata kunci: *Burung kenari, Cangri, Kortikosteron, SOD, Korelasi*

ABSTRACT

THE EFFECT OF CANGRI SUPPLEMENTATION ON THE CORRELATION BETWEEN SOD (Superoxide Dismutase) AND CORTICOSTERONE IN CANARIES (*Serinus canaria*)

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Canaries (*Serinus canaria domestica*) are species that are sensitive to environmental changes, where stress factors can trigger an increase in corticosterone hormone and the production of Reactive Oxygen Species (ROS) which lead to oxidative stress. The enzyme Superoxide Dismutase (SOD) acts as an endogenous antioxidant to neutralize these free radicals, but its activity is highly dependent on mineral availability. This study aims to determine the correlation between SOD levels and corticosterone hormone in canaries supplemented with blood clam shell flour (Cangri).

The research method involved 5 male canaries, 4 of which were treated with Cangri supplementation at a dose of 0.008 grams/day for 4 weeks, while 1 served as a control. Fecal samples were extracted using 80% methanol and analyzed using the ELISA method to measure SOD and corticosterone levels. Data were analyzed using the Spearman Rank correlation test due to the non-normal distribution of the data. The results showed a very weak and non-significant negative correlation between corticosterone and SOD levels ($r = -0,103$; $p = 0,704$). This lack of significance is thought to be influenced by dosage factors, endocrine system disorders in individual canaries, and environmental temperature factors during the study. In conclusion, Cangri supplementation under the conditions of this study has not yet demonstrated a strong linear relationship between the physiological stress response and the antioxidant defense system in canaries.

Key words: *Canary, Cangri, Corticosterone, SOD, Correlation*