

INTISARI

PERBANDINGAN KADAR TESTOSTERON FESES DAN SERUM BURUNG KENARI (*S. canaria*) SETELAH PEMBERIAN ZINC SULFAT

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Indonesia dikenal memiliki jumlah peminat burung kicau yang sangat banyak. Salah satu jenis yang paling umum adalah kenari (*Serinus canaria*). Kicauan burung kenari salah satunya dipengaruhi oleh kadar hormon testosteron yang bersirkulasi di dalam tubuhnya. Kadar testosteron ini dapat ditingkatkan dengan pemberian larutan zinc sulfat dalam jumlah tertentu. Pengukuran kadar testosteron dalam serum burung pada umumnya melibatkan prosedur pengambilan darah yang sulit dan berbahaya sehingga diperlukan metode lain yang lebih aman namun tetap efektif.

Penelitian ini mengkaji perbandingan kadar testosteron feses dan serum burung kenari (*Serinus canaria*) setelah dan tanpa diberi zinc sulfat. Penelitian dilakukan dengan metode non-invasif menggunakan empat ekor burung kenari jantan jenis Yorkshire yang dibagi menjadi dua kelompok yaitu kontrol dan perlakuan. Burung kelompok kontrol diberi akuades, sementara kelompok perlakuan diberi minum yang dicampur serbuk zinc sulfat sebanyak 0,009 mg/ekor. Semua burung dipelihara selama 21 hari dan dilakukan pengambilan sampel feses dan darah pada akhir penelitian. Sampel feses dan darah diekstraksi dan diukur kadar testosteronnya menggunakan ELISA kompetitif.

Rerata kadar testosteron feses kelompok perlakuan adalah $0,343 \pm 0,003$ ng/g feses kering dan kelompok kontrol sebesar $0,219 \pm 0,042$ ng/g feses kering. Sementara rerata kadar testosteron serum kelompok perlakuan adalah sebesar $0,036 \pm 0,006$ ng/dL dan kelompok kontrol sebesar $0,046 \pm 0,014$ ng/dL. Setelah diperbandingkan, hasilnya kadar testosteron feses teramati selalu meningkat selaras dengan peningkatan kadar testosteron serum pada kelompok kontrol dan perlakuan. Berdasarkan hasil penelitian tersebut, disimpulkan terdapat kenaikan kadar testosteron yang berbanding lurus antara sampel serum dengan feses pada kelompok kontrol dan Zn.

Kata kunci: Burung kenari, zinc sulfat, testosteron, feses, serum, ELISA

ABSTRACT

COMPARISON OF FECAL AND SERUM TESTOSTERONE LEVELS OF CANARY (*S. canaria*) AFTER ADMINISTRATION OF ZINC SULFATE

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Indonesia is known by having a large number of chirping bird's enthusiast. One of the most popular type is canary (*S. canaria*). Canaries' chirp is influenced partly by the level of testosterone that is circulating in their body. This level of testosterone can be elevated by the administration of zinc sulfate in a certain amount. The measurement of serum' testosterone is often involving a hard and dangerous procedure so it's necessary to find another method that is safer but still effective.

This research examine the comparison of canaries' fecal and serum testosterone levels with and without the administration of zinc sulfate. This research was done with a non-invasive method using four male Yorkshire canaries divided into two groups; control and treatment. Control group was given an aquadest and treatment group was given a 0,009 mg of zinc sulfate per individual. This research went on until 21 days and the sample of feces and blood were collected at the end of the research. Fecal and blood samples were being extracted and testosterone levels were examined by using competitive ELISA method.

Mean level of fecal testosterone in treatment group is $0,343 \pm 0,003$ ng/g dry feces and $0,219 \pm 0,042$ ng/g dry feces for the control group. Furthermore, mean level of serum testosterone in treatment group is $0,036 \pm 0,006$ ng/dL and $0,046 \pm 0,014$ ng/dL for the control group. After comparing, the result is fecal testosterone level is always increased in line with the increase in serum testosterone levels in control and treatment groups. Based on that result, it can be concluded that there is a relationship that is directly proportional between those two variables.

Keywords: Canary bird, zinc sulfate, testosterone, feces, serum, ELISA