PENGARUH INHIBITOR AROMATASE (IA) DAN PEJANTAN TERHADAP PROSES OVULASI PADA IKAN MAS KOKI (*Carassius auratus*)[*)]

THE INFLUENCE OF AROMATASE INHIBITOR (AI) AND MALE TO PROCESS OF OVULATION IN GOLDFISH (*Carassius auratus*) [*)]

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Abstrak

Penelitian ini bertujuan untuk mengetahui dosis optimal Inhibitor aromatase (IA) pada proses ovulasi ikan mas koki. Rasio jantan dan betina 1:3. Dosis yang digunakan adalah k= kontrol (disuntik minyak ikan), Pl = 2,5 mg/kg berat tubuh (b.t), P2 = 7,5 mg/kg b.t., dan P3 = 12,5 mg/kg b.t., Perkembangan proses ovulasi ditandai dengan perubahan kandungan protein dalam gonad, dan perubahan hormon dalam plasma darahnya, untuk pengamatan daya fertilitas telur (D.F.T) dan daya tetas telur (D.T.T) setelah ikan terlihat berovulasi ikan diangkat, kemudian distriping. Telur yang dihasilkan ditampung dan ditambahkan spermatozoa. Kurang lebih 100 butir telur diamati, kemudian dihitung persentase daya fertilitas telur dan daya tetas telurnya.

Hasil penelitian menunjukkan bahwa, pada proses ovulasi terjadi penurunan kandungan protein pada jam ketiga puluh enam perlakuan, kandungan protein pada P1 dan P2 turun sangat nyata dan lebih rendah dibandingkan kandungan protein kontrol, dan P3. Kandungan hormon estradiol dan progesteron mencapai puncak pada jam ketiga puluh enam perlakuan. Waktu ovulasi tercepat dicapai pada P1 yaitu 49.63±0,58 jam dengan hasil daya fertilitas telur (D.F.T.) dan daya tetas telur (D.T.T.) masing-masing sebesar 91,43 ± 1,14% dan 86,68±3,05%

Kata kunci : inhibitor aromatase (ia), ovulasi, daya fertilitas telur (D.F.T.) dan daya tetas telur (D.T.T.)

ABSTRACT

This research aim to to know optimal dose of Aromatase Inhibitor (AI) in goldfish ovulation process. Male and female ratio 1:3. The dose used were k= control (injected by NaCl fisiology); Pl = 2,5 mg /kg body weight (b.w); P2 = 7,5 mg /kg b.w.; and P3 = 12,5 mg/kg b.w. The process of ovulation by measuring the protein level in gonad, and change of hormone in the blood plasma. To analysis the fertilization and hatching rate, when the ovulation is detected the female is taken then stripped to release the eggs, the eggs were collected and the spermatozoa was added to fertilize then. Approximately 100 pieces of eggs were analysed, then e fertilization of egg and hatching rate were determined.

Result of research indicate that, the process of ovulation happened by degradation of the level of protein at thirty sixth hours after treatment, the level of protein at P1 and P2 the lowest then the control and P3. The level of hormone estradiol-17β and 17α-progesteron reaching to the peak at thirty sixth hours after treatment. Shortest ovulation time was reached by P1 that is 49.63±0,58 hours, with fertilization and hatching rate were 91,43 ± 1,14% and 86,68±3,05%, respectively.