

Muh. Ashiful Fadli, 2019, **Retensi Kandungan Plumbum Pada Berbagai Organ Induk dan Fetus Mencit (*Mus musculus*) Akibat Induksi Plumbum Asetat Pada Umur Kehamilan 8, 9, 10, 11 Hari**, skripsi ini dibawah bimbingan Prof. Win Darmanto, M.Si, Ph.D. dan Drs. Saikhu Akhmad Husen, M.Kes. Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui retensi kadar plumbum pada berbagai organ mencit nonbunting dan bunting dalam kasus keracunan plumbum. Dosis tunggal plumbum 100 mg/kgBB diinjeksi intraperitoneal pada mencit bunting dan nonbunting. Hewan coba yang digunakan sebanyak 27 ekor mencit (*mus musculus*) betina galur Balb/c dikelompokkan menjadi 7 kelompok perlakuan dan 2 kelompok kontrol, masing-masing kelompok terdiri atas 3 ekor. Pada kelompok mencit nonbunting yaitu kelompok kontrol normal (KN) yang hanya diberi akuades, kelompok perlakuan P1, P2 dan P3 pengukuran kadar plumbum pada interval waktu masing-masing 24, 48 dan 72 jam. Pada kelompok mencit bunting diukur kadar plumbum pada umur kehamilan 18 hari terdiri atas kelompok kontrol bunting (KB) yang hanya diberi akuades, kelompok perlakuan PA, PB, PC dan PD diinduksi plumbum asetat pada umur kehamilan masing-masing 8, 9, 10 dan 11 hari. Kadar plumbum pada berbagai organ mencit diukur menggunakan spektrofotometer serapan atom. Data kadar plumbum dianalisis dengan uji One way ANOVA dan uji duncan. Hasil penelitian menunjukkan pada mencit nonbunting kadar plumbum mengalami peningkatan setiap interval waktu, kadar plumbum tertinggi pada rambut diikuti oleh hepar, ginjal, otak, uterus dan terendah pada darah. Pada mencit bunting kadar plumbum mengalami peningkatan pada perlakuan PB atau interval waktu 9 hari setelah induksi plumbum, kadar plumbum tertinggi pada rambut diikuti oleh ginjal, hepar, uterus dan terendah pada otak. Pada darah induk, plasenta dan viseral fetus menunjukkan pola retensi yang sama yaitu secara signifikan tinggi pada perlakuan PA atau interval waktu 10 hari setelah induksi plumbum.

Kata kunci: retensi plumbum, organ, mencit bunting, spektrofotometer serapan atom, injeksi intraperitoneal

Muh. Ashiful Fadli, 2019, **Plumbum Retention In Various Organs and Fetuses of Mice (*Mus musculus*) Induced Due Plumbum Acetate At Gestational Age 8, 9, 10, 11 Days**, This thesis was under the guidance by Prof. Win Darmanto, M.Si, Ph.D. and Drs. Saikhu Akhmad Husen, M.Kes. Department of Biology, Faculty of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

This research was aimed to determine the retention of plumbum levels in various organs of nonpregnant and pregnant mice in case of plumbum poisoning. Single dose of plumbum 100 mg/kgBW was injected intraperitoneally to nonpregnant and pregnant mice. Twenty seven female mice (*mus musculus*) Balb/c strains grouped into 7 treatment groups and two control groups, each group consists of 3 mice. In group of nonpregnant mice namely normal control group (KN) who were given distilled water, the treatment group P1, P2 and P3 plumbum level was measurement at each time interval of 24, 48 and 72 hours. In group of pregnant mice plumbum levels measured at the gestational age of 18 days made up the control pregnant group (KB) are only given distilled water, the treatment group PA, PB, PC and PD were induced plumbum acetate at each gestational age 8, 9, 10 and 11 days. Plumbum levels in various organs of mice was measured using flame atomic absorption spectrophotometer. Data of plumbum level were analyzed with One way ANOVA and Duncan test. The results showed in nonpregnant mice plumbum levels have increased each time interval, the highest plumbum level was in the hair, followed by liver, kidney, brain, uterus and was lowest in the blood. In pregnant mice had increased levels of plumbum in PB treatment group or 9 days time interval after plumbum induction, the highest plumbum level was in the hair followed by the kidney, liver, uterus and was lowest in the brain. At the maternal blood, placenta and fetus visceral were showed the same retention patterns that significantly higher in PA treatment group or 10 days time interval after plumbum induction.

Keywords: plumbum retention, various organs, pregnant mice, atomic absorption spectrophotometer, intraperitoneal injection