

## INTISARI

### **PENGARUH PEMBERIAN TAMOXIFEN DAN ALFACALCIDOL TERHADAP PROFIL LIPID TIKUS (*Rattus norvegicus*) OVARIEKTOMI**

**Nika Mariandi**

Penelitian ini dilakukan untuk mengetahui profil lipid (kolesterol total, LDL, HDL, dan trigliserida) tikus ovariektomi yang diberi perlakuan tamoxifen dan alfacalcidol. Dua puluh lima ekor tikus putih betina umur 8 minggu dibagi menjadi lima kelompok masing-masing terdiri dari 5 ekor, yaitu kelompok kontrol non-ovariektomi yang diberi 1 ml aquabidest, kontrol ovariektomi diberi 1 ml aquabidest, ovariektomi yang diberi perlakuan tamoxifen dosis 10 mg/kgBB, ovariektomi yang diberi perlakuan alfacalcidol dosis 0,5µg/kg dan ovariektomi diberi perlakuan kombinasi alfacalcidol (0,5µg/kg) dan tamoxifen (10 mg/kgBB). Pakan diberikan sebanyak 15 gram per hari dan minum (aquabidest) diberikan secara *ad libitum*. Setelah 2 bulan perlakuan, darah tikus diambil untuk analisis kolesterol total, LDL, HDL, dan trigliserida.

Hasil penelitian menunjukkan kadar kolesterol total, HDL dan LDL tikus ovariektomi yang diberi perlakuan tamoxifen maupun yang dikombinasi dengan alfacalcidol secara signifikan lebih rendah dari tikus ovariektomi ( $P < 0,05$ ), sedangkan kadar trigliserida secara signifikan lebih tinggi dari tikus ovariektomi ( $P < 0,05$ ). Pada tikus ovariektomi yang diberi perlakuan alfacalcidol, kadar kolesterol total dan HDL tidak berbeda signifikan, sedangkan kadar LDL secara signifikan lebih rendah ( $P < 0,05$ ) dan trigliserida secara signifikan lebih tinggi dibandingkan tikus ovariektomi ( $P < 0,05$ ).

Pemberian tamoxifen maupun kombinasinya dengan alfacalcidol selama dua bulan pada tikus ovariektomi dapat menurunkan kadar kolesterol total, HDL, LDL, dan meningkatkan trigliserida. Pemberian alfacalcidol tidak berpengaruh terhadap profil lipid, namun cenderung menurunkan kadar kolesterol total, HDL, LDL, dan meningkatkan trigliserida.

***Kata kunci:*** Tamoxifen, alfacalcidol, profil lipid, ovariektomi

## ABSTRACT

### THE EFFECT OF TAMOXIFEN AND ALFACALCIDOL ON LIPID PROFILE OF OVARIECTOMIZED RATS (*Rattus norvegicus*)

**Nika Mariandi**

This study was conducted to determine the lipid profile (total cholesterol, LDL, HDL, and triglycerides) of ovariectomized rats treated with tamoxifen and alfacalcidol. Twenty five female rats at 8 weeks at age were divided into five groups of five. The negative control group (non-ovariectomy) were given 1 ml aquabidest, the positive controls (ovariectomy) were given 1 ml aquabidest, the ovariectomized rats treated with tamoxifen were given dosage of 10 mg/kg, the ovariectomized rats treated with alfacalcidol were given dosage of 0,5µg/kg and ovariectomized rats treated with combination of alfacalcidol and tamoxifen were given dosage of 0,5µg/kg and 10 mg/kg respectively. Feed was given 15 grams per day and aquabidest were granted ad libitum. After 2 months of treatment, the blood was taken for analysis of total cholesterol, LDL, HDL, and triglycerides.

The results showed that of total cholesterol, HDL and LDL of ovariectomized rats with tamoxifen treatment and in combination with alfacalcidol were significantly lower than the ovariectomized rats ( $P<0.05$ ); whereas triglyceride levels were significantly higher than ovariectomized rats ( $P<0.05$ ). In ovariectomized rats treated with alfacalcidol, total levels of cholesterol and HDL were not significantly different, meanwhile the levels of LDL were significantly lower ( $P<0.05$ ) and the levels of triglycerides were significantly higher compared to ovariectomized rats ( $P<0.05$ ).

In conclusion, administration of tamoxifen and it's combination with alfacalcidol for two months in ovariectomized rats can lower total cholesterol, HDL, LDL, and increase triglycerides. Alfacalcidol administration has no effect on the lipid profile, but it tends to lower total cholesterol, HDL, LDL, and increase triglycerides.

*Keywords: Tamoxifen, alfacalcidol, lipid profile, ovariectomy*