

INTISARI

Latar Belakang: Gejala menopause menjadi masalah kesehatan yang dapat menurunkan kualitas hidup wanita. Penyebab gejala tersebut adalah tidak dihasilkan hormon estrogen oleh ovum karena folikel dalam ovarium sudah habis. Pemberian suplemen yang mengandung *phytoestrogen* dapat mengurangi gejala tersebut, contohnya adalah kandungan ekstrak biji labu kuning yang bagi sebagian masyarakat adalah limbah yang tidak berguna.

Tujuan: Mengetahui efek estrogenik ekstrak biji labu kuning (*Cucurbita moschata*) terhadap ketebalan endometrium pada tikus ovariektomi.

Metode: Desain *true experimental in vivo* dengan rancangan *post - test only with control group design*. Subyek penelitian adalah tikus betina Sprague-Dawley, umur 8 minggu, berat 148 - 280 gram, 30 ekor. Perlakuan meliputi kontrol normal, kontrol negatif, kelompok perlakuan 1, 2, dan 3 (pemberian ekstrak 100, 200, dan 400 mg/kgBB) serta pemberian estradiol 252 µg/kgBB sebagai kontrol positif. Pengumpulan data menggunakan preparat histologi yang diamati dengan mikroskop dan mikrometer. Data diuji normalitasnya dengan uji *Shapiro-Wilk*. Analisis statistik menggunakan uji *One Way ANOVA*.

Hasil: Rata-rata ketebalan endometrium kelompok kontrol normal adalah $48,83 \pm 0,76$ µm, kelompok kontrol negatif adalah $56,70 \pm 11,96$ µm, kelompok perlakuan 1, 2, dan 3 adalah $50,83 \pm 5,99$ µm, $46,87 \pm 6,05$ µm, $51,12 \pm 8,14$ µm, kelompok kontrol positif adalah $43,65 \pm 10,51$ µm. Hasil uji statistik *One Way ANOVA*, menunjukkan tidak ada perbedaan yang signifikan pada ketebalan endometrium setiap kelompok, $p > 0,05$ ($p = 0,230$) dan ekstrak biji labu kuning belum terbukti memiliki efek estrogenik dalam meningkatkan ketebalan endometrium tikus ovariektomi.

Kata kunci: menopause, *cucurbita moschata*, ketebalan endometrium, ovariektomi

ABSTRACT

Background: Menopausal syndrome become health problems that decrease woman lifes' quality. The cause of these syndrome is the estrogen hormone that are not produced by ovum because the follicles inside the ovaries have been empty. The phytoestrogens supplements giving can reduce this syndrome, for example is the pumpkin seeds extract which for most people is unuseful thing.

Objective: To determine the estrogenic effects of pumpkin seeds extract (*Cucurbita moschata*) toward the endometrium thickness of ovariectomized rats.

Methods: This research used true eksperimental in vivo design with the post - test only with control group design. The subjects of the research were 30 of 8 weeks old Sprague - Dawley female rats, which were between 148 - 280 grams. The treatments that given were the normal control, the negative control, the treatment groups 1, 2, and 3 (extract 100, 200, and 400 mg/kgBB) and also the giving of estradiol 252 $\mu\text{g}/\text{kgBB}$ as the positive control. The data collection method was the histological smears that were observed with microscope and micrometer. The normality of the data was tested with with Shapiro - Wilk test. Additionally the statistical was analyzed used One Way ANOVA test.

Results: The average of the endometrium thickness of normal control group was $48.83 \pm 0,76 \mu\text{m}$, negative control group was $56.70 \pm 11,96 \mu\text{m}$, 1, 2, and 3 treatment groups were $50.83 \pm 5,99 \mu\text{m}$, $46.87 \pm 6,05 \mu\text{m}$, $51.12 \pm 8,14 \mu\text{m}$, positive control group was $43.65 \pm 10,51 \mu\text{m}$. The result of the statistic test using One Way ANOVA, represented that there was no significant differences of the endometrium thickness in every group, $p > 0.05$ ($p = 0.230$) and pumpkin seed extract evidently did not have any estrogenic effect in the endometrium thickness increasing of ovariectomized rats.

Keywords: menopause, *cucurbita moschata*, endometrium thickness, ovariectomy