

## INTISARI

**Latar Belakang :** *Curcuma longa* L adalah family dari Zingiberaceae yang digunakan sebagai tanaman obat karena telah terbukti dapat digunakan sebagai antiinflamasi dan antikanker. *C. longa* L memiliki kandungan senyawa kimia didalamnya seperti *polyphenols*, *sesquiterpenes*, *diterpenes*, *triterpenoids*, *sterols*, and *alkaloids*. Kurkumin memiliki fungsi sebagai *phytoestrogen* (estrogen lemah). Oleh karena itu, penting untuk mengetahui pengaruh kunyit terhadap alat reproduksi wanita khususnya uterus.

**Tujuan :** Dalam penelitian ini, akan dikaji pengaruh pemberian ekstrak etanol *Curcuma longa* L terhadap ketebalan endometrium dan jumlah glandula endometrium uterus tikus strain Sprague Dawley (SD).

**Metode :** Tikus yang digunakan adalah tikus betina strain SD usia 6 minggu. Penelitian terbagi menjadi 4 kelompok, masing-masing kelompok terdiri atas 5 ekor tikus, 4 kelompok dibagi menjadi kelompok kontrol dan 3 kelompok uji yang diberi ekstrak etanol *Curcuma longa* L. peroral dengan dosis 200, 250 dan 300mg/kgBB selama 8 siklus estrus. Setelah 8 siklus estrus, tikus dibedah ketika fase proestrus dan diambil uterusnya. Uterus diwarnai dengan pewarnaan Hematoksilin-Eosin, dan diamati ketebalan endometrium dan jumlah glandula endometrium menggunakan mikroskop cahaya.

**Hasil :** Semakin tinggi dosis ekstrak etanol *C. longa*, endometrium tikus menjadi lebih tipis daripada yang tidak diberi ekstrak etanol *C. longa* ( $P>0,05$ ). Jumlah glandula yang diberikan ekstrak etanol *C. longa* 250 mg/kgBB lebih banyak tetapi jumlah glandula endometrium pada kelompok yang diberikan ekstrak etanol *C. longa* 200 dan 300mg/kgBB lebih sedikit daripada kelompok yang tidak diberi ekstrak etanol *C. longa* ( $P>0,05$ ).

**Kesimpulan :** Semakin tinggi pemberian dosis ekstrak etanol *C. longa* menunjukkan kecenderungan menurunkan ketebalan endometrium. Jumlah glandula endometrium tikus SD yang diberikan ekstrak etanol *C. longa* menunjukkan kecenderungan tidak meningkatkan jumlah glandula, kecuali pada pemberian dosis ekstrak etanol *C. longa* 250mg/kgBB, namun secara statistika tidak bermakna.

**Kata kunci :** uterus, ekstrak etanol *Curcuma longa* L., endometrium, tikus strain Sprague Dawley.

## ABSTRACT

**Background** : *Curcuma longa* L. (turmeric) is a family of Zingiberaceae commonly collected and used as a medical plant because it has been proven to use anticancer and antiinflammation. *Curcuma longa* L. especially curcumin contains chemical compound such as *polyphenols*, *sesquiterpenes*, *diterpenes*, *triterpenoids*, *sterols*, and *alkaloids*. Curcumin has a function as a phytoestrogen (a weak estrogen). Therefore, it is important to know the effect of turmeric in the female reproduction tract especially on uterus.

**Aims** : Our research aimed to examine the effect of ethanolic extract of *C. longa* to the endometrial thickness and number of uterine endometrial gland of Sprague Dawley (SD) rat.

**Methods** : Rats used in this study were female SD-strained rat (6 weeks old). The rats were divided into 4 groups, one group as a control group, and 3 groups as experimental groups, where these groups were given ethanolic extract of *C. longa* L. 200, 250, and 300mg/kgBW for 8 estrus cycles. In the state of proestrus phase, the rats were sacrificed and the uterus were taken. The uterus were stained with hematoxylin-eosin, and then observed the thickness of the endometrial and endometrial gland by light microscopy.

**Results** : Higher dose of ethanolic extract of *C. longa* in the experimental group showed thinner endometrium than those group which are not given by the ethanolic extract of *C. longa* ( $P>0,05$ ). The amount of endometrial glands that were given 250mg/kgBW dose of ethanolic extract of *C. longa* has been increased but on 200 and 300mg/kgBW dose group has been decreased than those group which are not given by the ethanolic extract of *C. longa* ( $P>0,05$ ).

**Conclusion** : Higher dosages of ethanolic extract of *C. longa* showed the tendency to reduce the thickness of endometrium. The endometrial glands that were given ethanolic extract of *C. longa* showed the tendency of being unaffected by the extract, except those given at doses of 250mg/kgBW. However, the statistical testing results are insignificant.

**Keywords** : utery, ethanolic extract of *Curcuma longa* L, endometrium, Sprague Dawley rat.