Efek ekstrak etanol rimpang temu hitam curcuma aeruginosa roxb terhadap pertumbuhan dan histopatologi tumor payudara tikus putih yang diinduksi 7 12 dimetilbenz antrasena = The effect of ethanolic extracts of temu hitam rhizomes curcuma aeruginosa roxb on breast tumor growth and tumor histopathology on white rats induced by 7 12 dimetilbenz anthracene

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Abstrak

Penelitian ini bertujuan meneliti ekstrak etanol Curcuma aeruginosa Roxb. yang dihipotesakan menjadi terapi alternatif komplementer kanker payudara. Ekstrak dibuat dengan maserasi menggunakan pelarut etanol 96%. Hewan yang digunakan adalah tikus putih betina strain Sprague-Dawley dibagi dalam 9 kelompok yaitu kontrol normal, kontrol DMBA, kontrol doksorubisin, kelompok perlakuan kuratif dan kelompok perlakuan adjuvan. Setiap tikus, kecuali kontrol normal, diinduksi dengan 7-12-dimetilbenz(a)antrasena (DMBA) 20 mg/kgBB sebanyak 5 kali, dua kali seminggu. Masa inkubasi tumor 8 minggu. Kelompok perlakuan mendapatkan ekstrak dalam 3 variasi dosis yaitu 40 mg/200gBB, 80 mg/200gBB dan 160 mg/200gBB. Palpasi dilakukan seminggu sekali. Pada minggu terakhir perlakuan dilakukan pembedahan. Tumor dibuat preparat histopatologi hematoksilin-eosin dan AgNOR. Hasil penelitian menunjukkan bahwa semua kelompok kuratif dan kelompok adjuvan (2 dan 3) berat tumornya lebih rendah secara signifikan (P<0.05) dibandingkan DMBA. Volume tumor kelompok kuratif dosis 1 dan 3 serta adjuvan 2 lebih rendah secara signifikan (P<0.05) dibandingkan DMBA. Skor HE kelompok kuratif dosis 1 dan 3 lebih rendah signifikan (<0.05) dibandingkan DMBA. Nilai mAgNOR dan pAgNOR seluruh kelompok lebih rendah secara signifikan (P<0.05) dibandingkan DMBA. Secara keseluruhan disimpulkan bahwa ekstrak temu hitam dapat menghambat pertumbuhan tumor payudara tikus khususnya kelompok perlakuan kuratif dosis 3 (160 mg/200gBB), meskipun tidak sebanding dengan doksorubisin.
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The aim of this study is to investigate the ethanolic extract of Curcuma aeruginosa Roxb. which hypothesised to become complementary alternative therapies for breast cancer. Extracts were made by maceration using ethanol 96%. Animals used were female white rats of Sprague-Dawley strain which divided into nine groups: normal control, DMBA control, doxorubicin control, curative treatment groups and adjuvant treatment groups. Each rat, except for the normal controls, induced by 7-12-dimetilbenz()anthracene (DMBA) 20 mg/kgBW 5 times, twice a week. The incubation period of tumors was 8 weeks. Extract in the treatment group were given 3 variant of doses, 40 mg/200gBW, 80 mg/200gBW and 160 mg/200gBW. Palpation done once a week. Surgery was done in the last week of treatment. Histopathological slides of tumor in hematoxylin-eosin and AgNOR staining was made. The results showed that tumor weight of all curative groups and adjuvant groups (2 and 3) was significantly lower (P <0.05) than DMBA. Tumor volume of curative groups dose 1 and 3 and adjuvant 2 significantly lower (P <0.05) than DMBA. HE score of curative groups dose 1 and 3 significantly lower (<0.05) than DMBA. The value of mAgNOR and pAgNOR of the whole group was significantly lower (P <0.05) than DMBA. Overall can be concluded that the extract of temu hitam can inhibit the rat breast tumors growth particularly the curative

treatment dose 3 (160 mg/200gBW) although not comparable to doxorubicin.