

## ABSTRACT

**The Size Effect Extremity of Front and Rear Malformations Fetus of White Rat Female (*Rattus Norvegicus*) Sprague dawley After Giving Extract of Purple Nutsedge (*Cyperus Rotundus L.*)**

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**Background:** The use of drugs during pregnancy can affect the growth and development of the fetus. One of the effects that can arise during pregnancy is the teratogenic effect due to the use of drugs that are not safe for pregnant women. One of the plants that is being developed into herbal medicine is the grass tuber extract (*Cyperus rotundus*. L). Purple Nutsedge also have flavonoids that are teratogenic to the fetus during pregnancy. To determine the effect of giving the purple nutsedge tuber extract (*Cyperus rotundus*. L) to the size of the front and back extremities of the fetus of the white mouse (*Rattus novergicus*) during pregnancy.

**Method:** This study used samples of pregnant female rats as many as 24 rats which were divided into 4 treatment groups, namely control (K) rats only given aquadest, treatment group 1 (P1) rats given purple nutsedge tuber extract at a dose of 112.5mg / 200grBB, treatment group 2 (P2) dose 225mg / 200grBB, and treatment group 3 (P3) dose 450mg / 200grBB. On the 18th day a pregnancy termination is carried out and an observation of the front and back extremities of the fetus is carried out. **Result:** The average length of the front limb obtained was K = 14.04mm, P1 = 13.33mm, P2 = 11.85mm, P3 = 11.35mm and the average of the back extremity obtained was K = 14.03mm, P1 = 13.34mm, P2 = 11.83mm, P3 = 11.36mm. Data was then carried out by One Way Annova statistical test with p = 0,000 followed by post hoc LSD test and the results showed that there were significant differences in K-P1 (p = 0.698), K-P2 (p = 2.194), and K-P3 (p = 2,670).

**Conclusion:** There is an effect of giving the purple nutsedge tuber extract (*Cyperus rotundus*. L) to the size of the front and back extremities of the fetus of the white mouse (*Rattus novergicus*) during pregnancy.

**Keyword:** fetal extremities, herbal medicine, purple nutsedge tuber extract, teratogenic.

## **ABSTRAK**

**UKURAN EKSTREMITAS DEPAN DAN BELAKANG FETUS TIKUS  
PUTIH BETINA (*Rattus norvegicus*) GALUR Sprague dawley  
SETELAH PEMBERIAN EKSTRAK UMBI  
RUMPUT TEKI (*Cyperus rotundus* L.)**

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**Latar Belakang:** Penggunaan obat selama masa kehamilan dapat mempengaruhi tumbuh dan kembang janin. Salah satu efek yang dapat timbul selama masa kehamilan yaitu efek teratogenik akibat penggunaan obat yang tidak aman dikonsumsi bagi ibu hamil.. Salah satu tanaman yang sedang dikembangkan menjadi obat herbal yaitu ekstrak umbi rumput teki (*Cyperus rotundus* L.). Rumput teki juga memiliki senyawa flavonoid yang teratogenik terhadap janin selama kehamilan. Untuk mengetahui efek pemberian ekstrak umbi rumput teki (*Cyperus rotundus* L) terhadap ukuran ekstremitas depan dan belakang fetus tikus putih (*Rattus novergicus*) selama masa kehamilan.

**Metode:** Penelitian ini menggunakan sampel tikus betina hamil sebagai hewan uji sebanyak 24 ekor tikus yang dibagi dalam 4 kelompok perlakuan, yaitu kontrol (K) tikus hanya diberikan aquadest, kelompok perlakuan 1 (P1) tikus diberikan ekstrak umbi rumput teki dengan dosis 112,5mg/200grBB, kelompok perlakuan 2 (P2) dosis 225mg/200grBB, dan kelompok perlakuan 3 (P3) dosis 450mg/200grBB. Pada hari ke 18 dilakukan terminasi kehamilan lalu dilakukan pengamatan terhadap ekstremitas depan dan belakang fetus.

**Hasil:** Rerata panjang ekstremitas depan yang didapatkan adalah K=14.04mm, P1= 13.33mm, P2= 11.85mm, P3= 11.35mm dan rerata ekstremitas belakang yang didapatkan adalah K= 14.03mm, P1= 13.34mm, P2= 11.83mm, P3= 11.36mm. Data kemudian dilakukan uji statistik *One Way Anova* dengan  $p=0,000$  dilanjutkan dengan uji *post hoc LSD* dan dipapatkan hasil terdapat perbedaan yang bermakna pada K-P1 ( $p=0.698$ ), K-P2 ( $p=2.194$ ), dan K-P3 ( $p=2.670$ ).

**Kesimpulan:** Terdapat pengaruh pemberian ekstrak umbi rumput teki (*Cyperus rotundus* L) terhadap ukuran ekstremitas depan dan belakang fetus tikus putih (*Rattus novergicus*) selama kehamilan.

**Kata kunci:** ekstrak umbi rumput teki, ekstremitas fetus, obat herbal, teratogenik.