

PENGARUH EKSTRAK AKAR GINSENG JAWA DAN GINSENG KOREA TERHADAP SINTESIS PROTEIN TESTIS YANG BERPERAN DALAM SPERMATOGENESIS

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ABSTRACT

This study was aimed to know the effect of Java ginseng and Korean ginseng roots on synthesis of testicular proteins that needed for spermatogenesis.

Eighteen male rats (8-9 weeks) were divided into 4 groups. Rats were given orally with ethinylestradiol (6 rats-group I), ethinylestradiol and extract of Korean ginseng root (3 rats-group II), ethinylestradiol and extract of Java ginseng (3 rats-group III), and drinking water only (6 rats-group IV).

Ethinylestradiol that administered equal to 1 mg/ 100 g body weight/ day for each rat but extract of Java ginseng or Korean ginseng roots was equal with 3,5 mg dry ginseng root/ 100 bw/ day each. That treatment was done for 14 days. The testes was collected on the last day of treatment.

Testes from three rats each from group I and group IV were sectioned by paraffin method and stained with haematoxyline-eosin but other testes (3 rats for each group) were made to homogenate. Testicular extract was made from 1 testicular homogenate : 3 phosphate buffer saline. Testicular proteins were separated by 10 % SDS-PAGE. Gel was stained with Coomasie brilliant blue 0,25%.

According to protein bands in gel and histological observation, this study revealed that the administration of extract of both Java ginseng and Korean ginseng roots equal with 3,5 mg dry ginseng root/ 100 bw/ day for 14 days, influence synthesis of testicular protein that have role on meiotic stage of spermatogenesis. These proteins have MW 14, 44 and 68 kDa.

Keywords: Java ginseng, Korean ginseng, testicular proteins, spermatogenesis.