Pengaruh pemberian ekstrak Dimer Isoeugenol terhadap kualitas Spermatozoa mencit (Mus Musculus L.) jantan galur DDY = Effect of Isoeugenol Dimer extract administrated orallay on the quality of Spermatozoa of male mice (Mus Musculus L.) DDY strain

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Abstrak

Penelitian bertujuan untuk mengetahui pengaruh pemberian ekstrak dimer isoeugenol secara oral terhadap kualitas spermatozoa mencit jantan galur DDY. Kelompok kontrol diberi minyak zaitun. Kelompok perlakuan diberi ekstrak dimer isoeugenol dengan dosis 2,4 mg/kg bb; 4,8 mg/kg bb; 9,6 mg/kg bb; dan 19,2 mg/kg bb. Masing-masing kelompok kontrol dan kelompok perlakuan terdiri atas 5 ekor mencit. Bahan uji diberikan setiap hari selama 36 hari berturut-turut.

Hasil penelitian menunjukkan adanya penurunan motilitas spermatozoa dan viabilitas spermatozoa pada dosis 4,8 mg/kg bb; 9,6 mg/kg bb; da 19,2 mg/kg bb, juga konsentrasi spermatozoa pada dosis 9,6 mg/kg bb dan 19,2 mg/kg bb. Kenaikan abnormalitas ditemukan pada dosis 4,8 mg/kg bb; 9,6 mg/kg bb; dan 19,2 mg/kg bb. Hasil tersebut menunjukkan bahwa pemberian ekstrak dimer isoeugenol dapat menurunkan kualitas spermatozoa mencit jantan mulai dosis 4,8 mg/kg bb dan memiliki batas aman penggunaan sampai 2,4 mg/kg bb.
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The research aims to determined the effect of isoeugenol dimer extract administrated orally on the quality of spermatozoa of male mice DDY strain. The control group was given olive oil. The treatment group were given isoeugenol dimer with doses of 2.4 mg/kg bw; 4.8 mg/kg bw; 9.6 mg/kg bw; and 19.2 mg/kg bw. Each control group and treatment group consisted of 5 mices. Test material administrated daily for 14 consecutive days.

The results showed that a decreased in sperm motility and viability of spermatozoa at doses 4.8 mg/kg bw; 9.6 mg/kg bw; and 19.2 mg/kg bw, as well as the concetration of spermatozoa at doses 9.6 mg/kg bw and 19.2 mg/kg bw. The increased in spermatozoa abnormality were found at doses 4.8 mg/kg bw; 9.6 mg/kg bw; and 19.2 mg/kg bw. The result indicated that administration of extract dimer isoeugenol can reduce the quality of spermatozoa from male mice stated from doses 4.8 mg/kg bw and had usage threshold up to 2.4 mg/kg bw.