

Uji teratogenitas difenilhidantoin pada mencit strain biomedis

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Abstrak

Telah dilakukan uji teratogenitas Nat'iuñi. difeni1hi dantoin (Na-DPH) pada mencit strain Biomedis, bertujuan untuk memprediksi sensitivitas strain mi terhadap pemberian obat. Berat badan mencit antara 20-25 grain, berumur 2,5 bulan. Dosis yang digunakan 50 mg/kg BB atau 100 mg/kg BB dan kontrol, dilarutkan dalam larutan 0.05% NaOH, diberikan secara intraperitoneal. Mencit yang hamil dibagi secara random menjadi 12 subkelompok. Obat diberikan selama 3 hari dalam periode organogenesis pada hari ke 6 - 8; 9 - 11; 12 - 14 kehamilan serta dosis tunggal pada hari ke 12 kehamilan. Pemeriksaan fetus dilakukan setelah histerektomi pada hari ke 18 kehamilan. Dihitung jumlah fetus hidup tanpa cacat, yang mengalami resorpsi dan mati intrauterus serta fetus cacat I yang dilihat secara makroskopik. Dianalisa juga berat badan mencit selama kehamilan.

Dengan analisa statistik (Fisher test) menunjukkan pengaruh bermakna terhadap prevalensi cacat bawaan dibandingkan kelompok kontrol. Tidak terdapat pengaruh bermakna obat terhadap berat badan mencit selama kehamilan.

.....The teratogenicity of Diphenylhydantoin Sodium (DPH - Na) has been investigated on Biomedis strain mice, in order to predict the sensitivity of this strain against DPH-Na.

The average body weight of the 2.5 months female mice were 20 to 25 gram. The dosages of 50 mg/kg B.W. or 100 mg/kg B.W in 0.05% NaOH solution

were used, they were given intraperitoneally.

The pregnant mice were randomly divided into 12 sub groups based on the treatment schedule. The drug were given three days in their organogenesis period i.e on the 6th to 8th; 9th to 11th; 12th to 14th of gestation day and a single dose on the 12th day. Fetus examination was carried out after mice laparotomy on the 18th day of pregnancy. The numbers of all living and intact dead fetuses with resorption and foetuses with congenital anomalies were observed and recorded. The weight gain along the pregnancy were also analysed. With statistical analyses (Fisher test) it was shown that there were significant effect of PR-Na on the congenital anomalies prevalence compared to the control group ($p < 0.05$). There were significant effect (Fisher test), of the administering days on the cleft palate prevalence that were on the 9th - 11th; 12th; 12th - 14th of gestation

day ($p < 0.05$). There were also significant effect (Chi square test) of medicine on the resorption and intrauterine deaths of all the groups ($p < 0.05$). The effect of DPH-Na on the weight gain along the pregnancy was not significant (Anova two way test).