Pengaruh pemajanan extremely low frequency electromagnetic field terhadap jumlah dan morfologi folikel primer mencit, serta efek kumulatif antar generasi = The influence of extremely low frequency electromagnetic field exposure on amount and morphology of primary follicle of mice, and inter generational cumulative effect

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Abstrak

ABSTRAK
Peralatan elektrik rumah tangga merupakan bentuk Extremely Low Frequency - Electromagnetic Field (ELF-EMF) yang diduga dapat mempengaruhi aktivitas
hormonal siklus ovarium, termasuk folikulogenesis. Penelitian ini bertujuan untuk melihat pengaruh pemajanan ELF-EMF dengan tegangan tertentu (kontrol, 3 kV, 4 kV, 5 kV) terhadap jumlah dan morfologi folikel primer, serta melihat ada tidaknya efek kumulatif antar-generasi (generasi pertama, kedua, dan ketiga).
Metode yang digunakan adalah metode eksperimental pada mencit strain Swiss Webster. Mencit yang dietanasi akan diambil ovariumnya untuk dijadikan sampel penelitian. Sampel untuk tiap tegangan dan tiap generasi berjumlah sebanyak 5 buah, dengan total yang akan dianalisis sebanyak 60 sampel. Pada uji normalitas dengan Kolmogorov-smirnov, data yang terdistribusi normal (p 0,05) dianalisis dengan uji one-way ANOVA, sedangkan data yang distribusinya tidak normal (p < 0,05) dianalisis dengan uji Kruskal-wallis. Seluruh analisis data menunjukkan p 0,05, sehingga tidak dilanjutkan dengan analisis Post Hoc. Oleh karena itu, dapat disimpulkan bahwa pemajanan ELF-EMF pada berbagai tegangan tidak mempengaruhi jumlah dan morfologi folikel primer mencit, serta tidak terdapat efek kumulatif antar-generasi.
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ABSTRACT
Household electrical appliances is a form of Extremely Low Frequency - Electromagnetic Field (ELF-EMF) that might impact on hormonal activity of ovarian cycle, including folliculogenesis. This study aimed to examine the effect of ELF-EMF exposure with a certain voltage (control, 3 kV, 4 kV, 5 kV) to the number and morphology of primary follicles, and see whether there is a cumulative effect of inter-generation (first, second, and third generation). The method used is experimental on strain Swiss Webster mice. Executed mice?s ovary will be taken for the research sample. Sample for each voltage and each generation amounted to as much as 5 pieces, with a total of 60 samples will be analyzed. In the test of normality with the Kolmogorov-Smirnov, normally distributed data (p 0.05) were analyzed by one-way ANOVA test, while unnormally distributed data (p <0.05) were analyzed with the Kruskal-Wallis test. The entire analysis of the data showed p 0.05, so it is not followed by Post Hoc analysis. Therefore, it can be concluded that exposure of ELF-EMF with certain voltage does not affect the number and morphology of primary follicles of mice,

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