



MEETING ABSTRACT

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# Effects of exposure to extremely low-frequency magnetic field of 2mT intensity on Spatial memory and learning in rat

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From 1<sup>st</sup> International Congress on Neurobiology and Clinical Psychopharmacology and European Psychiatric Association Conference on Treatment Guidance Thessaloniki, Greece. 19-22 November 2009

## Background

Extremely low-frequency magnetic fields (ELFMF), have been reported to produce a variety of biological effects, interfere with the activity of the brain and may cause behavioral and cognitive disturbances. Some efforts have been made to investigate the incidence of ELFMF on human health and animal physiology and behavior.

## Materials and methods

30 male rats were completely divided into 3 groups (2 experimental and control). Exp1, group that were exposed EMFs (50 Hz frequency, 2 mT intensity) for 20 minutes. Exp2, group that were exposed EMFs (60 Hz frequency, 2 mT intensity) for 20 minutes. For similar conditions control group were situated into set of EMFs for 20 minutes. Spatial memory was done with Morris water maze (6 days, 4 trails).

## Results

The results show that exposed to EMFs(50 Hz&60 Hz frequency, 2 mT intensity) are significantly better in practice related to spatial memory in comparison with control group.

## Conclusions

Our results demonstrate that exposed ELFMF are significantly better in practice related to spatial memory in comparison with control group.

## Acknowledgements

We thank Azad University of Mashhad for Support.

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Published: 22 April 2010

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doi:10.1186/1744-859X-9-S1-S144

Cite this article as: Kafae et al.: Effects of exposure to extremely low-frequency magnetic field of 2mT intensity on Spatial memory and learning in rat. *Annals of General Psychiatry* 2010 **9**(Suppl 1):S144.

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