Effects of long-term exposure of human granulosa cells to low-dose of DEHP

D. Samardzija Nenadov, K. Pogrmic-Majkic, S. Fa, B. Stanic, N. Andric

Faculty of Sciences, University of Novi Sad, Novi Sad, Serbia e-mail: dragana.samardzija@dbe.uns.ac.rs

INTRODUCTION

Di-(2-ethylhexyl) phthalate (DEHP) is a powerful endocrine disruptor that belongs to the group of phthalates. DEHP can be found in human body fluids at nM concentrations. Exposure of women to DEHP adversely affects IVF outcome, while *in vivo* and *in vitro* studies demonstrate its harmful effects on granulosa cells' steroidogenesis in animals. The aim of this study was to investigate the *in vitro* effects of long-term exposure to low dose of DEHP on the function of human granulosa cells (HGrC1).

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The cells were exposed for **4 weeks** to DEHP at concentrations found in follicular fluid and serum **(50 nM and 250 nM).** The steroidogenesis in granulosa cells was evaluated every week.



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Effects of DEHP on aromatase expression and estradiol production







CONCLUSION

✓ long-term treatment with low doses of DEHP doesn't have detrimental effects on steroidogenesis in HGrC1 cells.

